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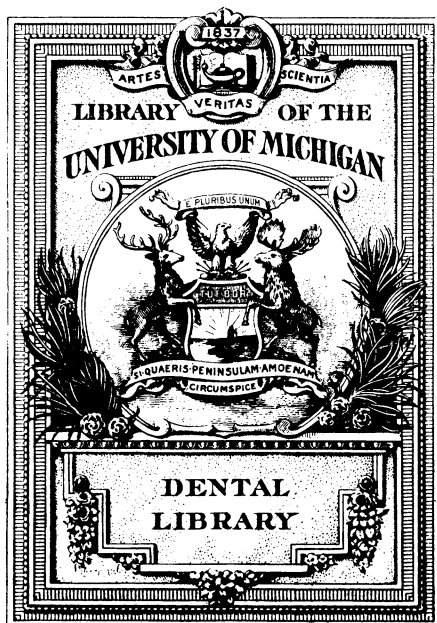
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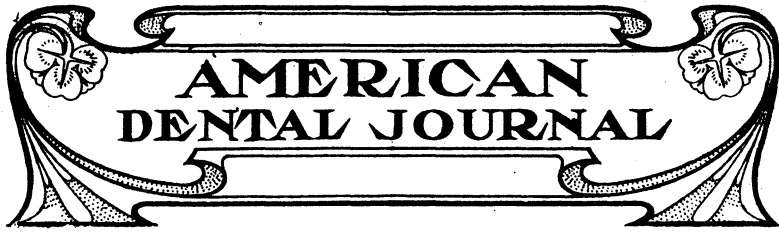
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## TABLE OF CONTENTS

### Progressive Course of Practical Instruction

Orthodontia,	
By J. N. M'DOWELL, D. D. S.	71
Prosthetic Dentistry,	
By B. J. CIGRAND, B. S., M. S., D. D. S.	81
Operative Dentistry,	
By R. B. TULLER, D. D. S.	88
Dental Therapeutics,	
By GEORGE W. COOK, B. S., D. D. S.	92

### Original Contributions

Toothsome Topics,	
By R. B. TULLER, D. D. S.	98

### Abstracts and Selections

Extracts from the Dental Periodicals, Forty-nine	
Years Ago,	102
Fourth International Dental Congress, as Viewed	
by a Briton,	109
Immunity from Consumption,	
By CYRUS L. TOPLIFF,	111

## TABLE OF CONTENTS—Continued.

<b>Editorial</b>	- - - - -	114
<b>Society Announcements and Reports of Meetings</b>	-	118
<b>Necrological</b>	- - - - -	123
<b>Miscellaneous</b>	- . - - -	126
<b>Dental Patents, Illustrated</b>	- - - - -	128
<b>Personal and General</b>	- - - - -	130
<b>The Story of the King's Dentist,</b>	- - - - -	131
<b>Index to Advertisers</b>	- - - - -	135

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# Progressive Course of Practical Instruction

## ORTHODONTIA.

BY J. N. McDOWELL, D. D. S., PROFESSOR OF ORTHODONTIA, COLLEGE OF DENTISTRY, UNIVERSITY OF ILLINOIS.

### CHAPTER II.

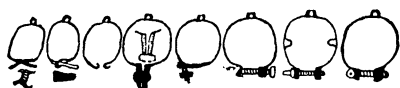
In the January number, brief data on the history of Orthodontia was given from the earliest knowledge of the subject up to the present time. In regard to the variety of the sets of appliances and methods followed and used by the dental profession today, it is not the writer's intention to praise, condemn or discuss their merits or weak points. However, comparison will be made when the treatment phase is reached. Each method has a following and each has its claim of merit, however all are working for the same end, and if one is able to accomplish more by adhering to one method it is advisable to follow that method. I may say that it would be advisable never to discard or condemn a method without first giving the same a good trial. That each method has merits and also some weak points there is no question. My advice is to use the appliances that one can secure the best results with, according to the kind of case treated. The question of cost of appliances should never be considered. If it is, in the majority of cases, the treatment will suffer. What is really desired at first is to gain a reputation among your patients, that you are capable and competent to handle cases of irregularity. One failure in treatment will do you more harm than five successful treatments will do you good. As your reputation for this work grows, your fees should increase proportionately. For the benefit of those that desire information concerning text books below is given a list of the majority of text books on Orthodontia, and also a list of the sets of regulating appliances that with one or two exceptions are found on the market.

Text Books: Kinglesey, Farrar, Talbot, Guilford, Angle, Knapp, MacDowell, Case (will be out soon), American Text Book of Operative Dentistry, Tafts' Operative Dentistry.

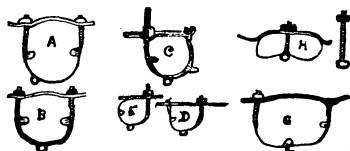
\*Through error the lines under cuts on pages 6 and 7, Jan. issue, read "retaining appliances"; should have been "regulating appliances".

Appliances: Farrar, Patrick, Yoke, Talbot, Case, Angle, Jackson, Knapp, Lukens, MacDowell, Canning, Blue Island Specialty Co.

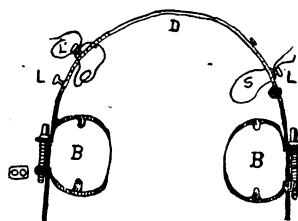
Referring briefly to some of the inventors of appliances we may say that Dr. J. W. Farrar deserves a word of praise for his pioneer work in Orthodontia. About 1876 Dr. Farrar brought out a set of regulating appliances (Fig. 1), and credit must be given for the



—Stapled Anchor-bands for Single Teeth.



—Transverse Screw clamp-bands (A).



—Combination of Tie-lugs with the Long-band anchored to Anchor Clamp-bands (A).

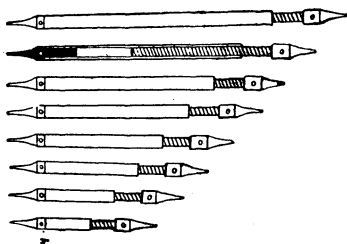
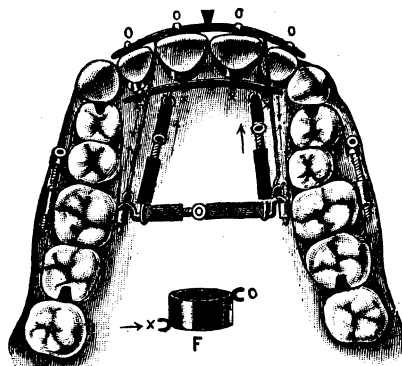


Fig. 186.—Spindle-jacks (A).



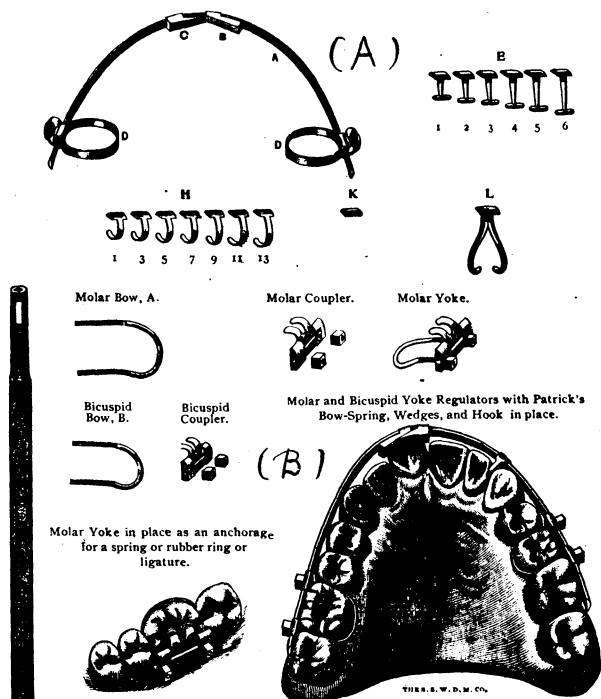
Farrar's appliance for moving incisor roots forward.

FIG. 1.

ingenious and original manner in which he experimented with and brought out regulating appliances.

In 1881 W. H. Coffin gave to the dental profession a method of expanding the arches by the use of rubber plate and spring, called the Coffin Plate (C and G cut shown last month). To produce lateral expansion of the arches a vulcanite plate is made for the

upper or lower, as the case may be. On the upper plate a wire spring may be bent in the form of a letter S. On the lower arch the wire spring follows the arch around on the lingual surface. After fitting the plate it is sawed in two, thus giving lateral pressure by the springs. Many varieties of plates may be used with springs to exert pressure upon the different teeth. Dr. Talbot and one or



The Yoke Regulator is really an improved device for attaching the Patrick Bow-Spring and other regulating appliances to the anchorage teeth selected. No impression is required, as the Yokes are intended as sold for direct application to the teeth. There are two sizes, respectively for molars and bicuspid, made of 18-k gold. They are easily adjusted, and, as would be supposed from an inspection of the illustrations, afford a firm anchorage. They have a wide range of usefulness, because they can be adjusted to any teeth in the two classes (molars and bicuspid), and can be used as a base for many regulating operations, with many different forms of appliances for moving teeth.

FIG. II.

two others modified the plate and spring method to some advantage, using springs as F, shown last month.

In 1882 Dr. Patrick brought out an appliance which consisted of a flat spring arch, two clamp bands for molars and clamp arms to hold the teeth to be moved. (Fig. 2.) A represents the arch or bow spring, as he called it. A is a half-round bar of wire of plat-

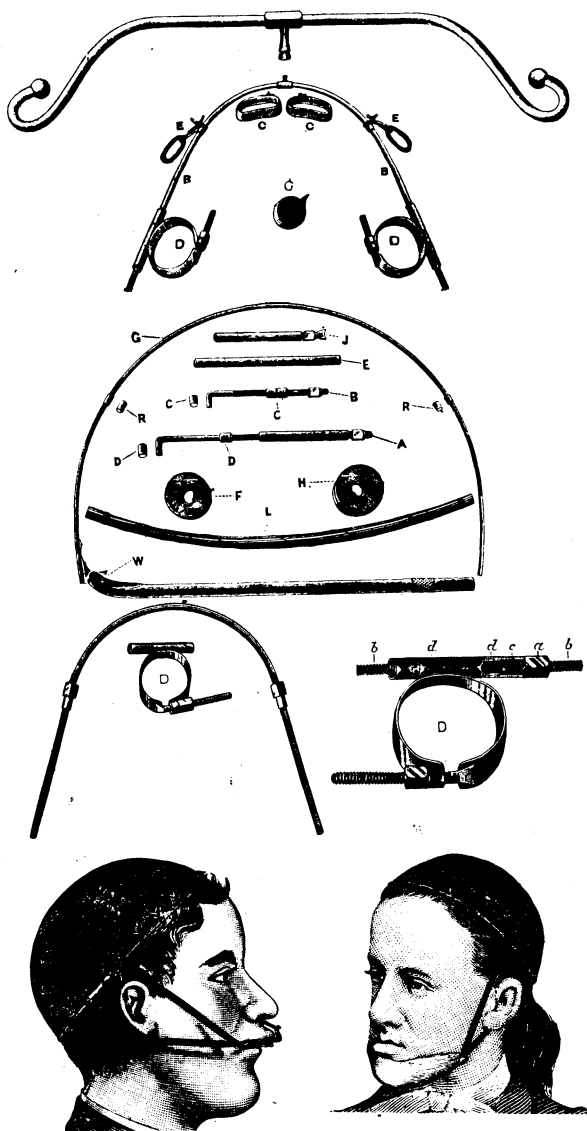


FIG. III.

inized gold bent in the form of a horseshoe to approximately conform to the shape of an arch. DD are the clamp bands, made of gold. On the buccal surface of the clamp bands are short half-round tubes K, in which to anchor the ends of the arch. Dr. York has modified the Patrick appliance some, as shown by B, Fig. 2.



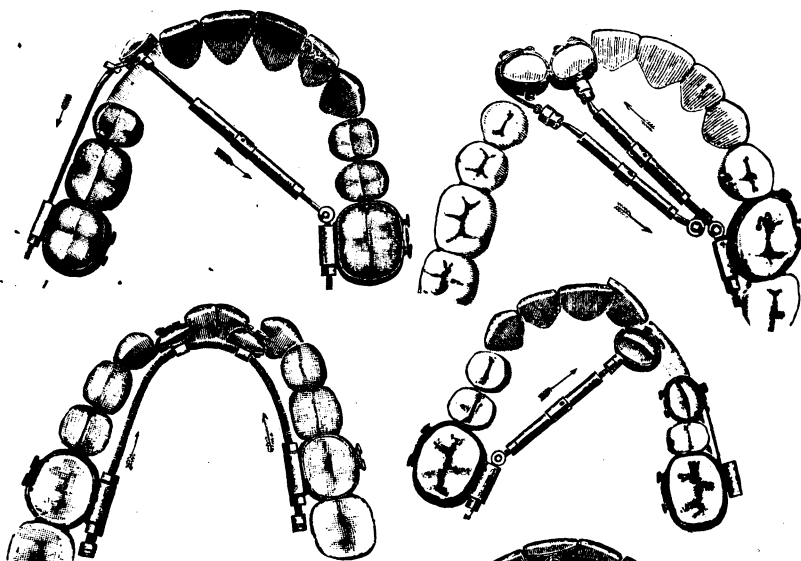


FIG. 55.

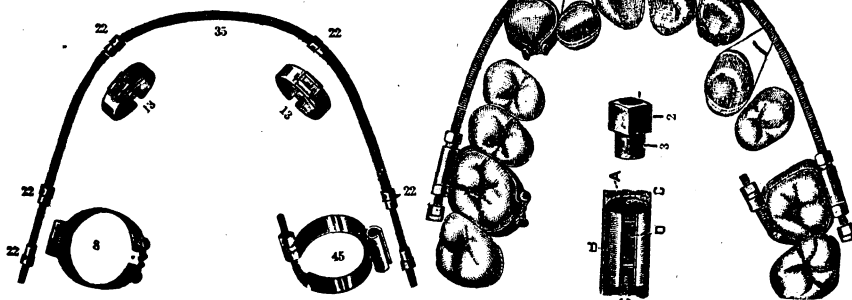


FIG. IV.

Dr. Byrne has devised a very ingenious method of regulating teeth, something on the order of the Coffin method, except that he does away with the vulcanite plate. He uses broad, flat springs of gold and the springs being crimped and dented into folds, Figs. E and I, shown last month, which, by their elasticity, serve as the power

for moving the teeth. After the tooth has moved the pressure is again increased by pinching one of the crimps so that it will open out a little. To retain this in position the ends are passed around the distal teeth, burnished to fit, then soldered. (Cut shown last month.)

Dr. Jackson has devised a method that is a combination and continuation of the Coffin and Byrnes method, using the wire spring alone, in the majority of cases bending it to conform to the arch, and then bending the ends to rest against the teeth to be moved. The wire is retained in position by a wire crib (D and H, shown last month), the wings passing over the teeth to prevent the wire arch from pressing on the gums. Dr. Jackson's appliances are made of piano wire.

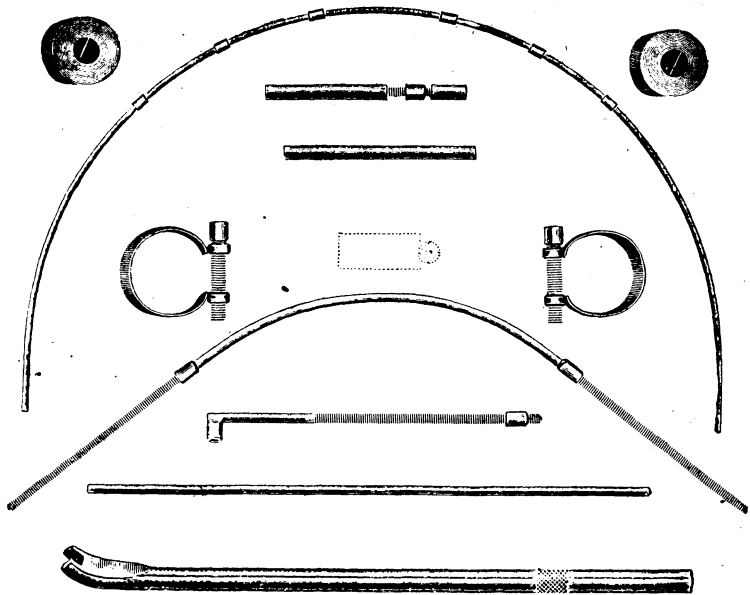


FIG. V.

In 1886 Dr. Angle brought out a set of appliances divided into two sets, No. 1 and No. 2, with extra parts (Fig. 3). All of these appliances are made of German silver and gold plated, with the exception of the lever wire, which is of piano wire, and the chin cap, which is aluminum.

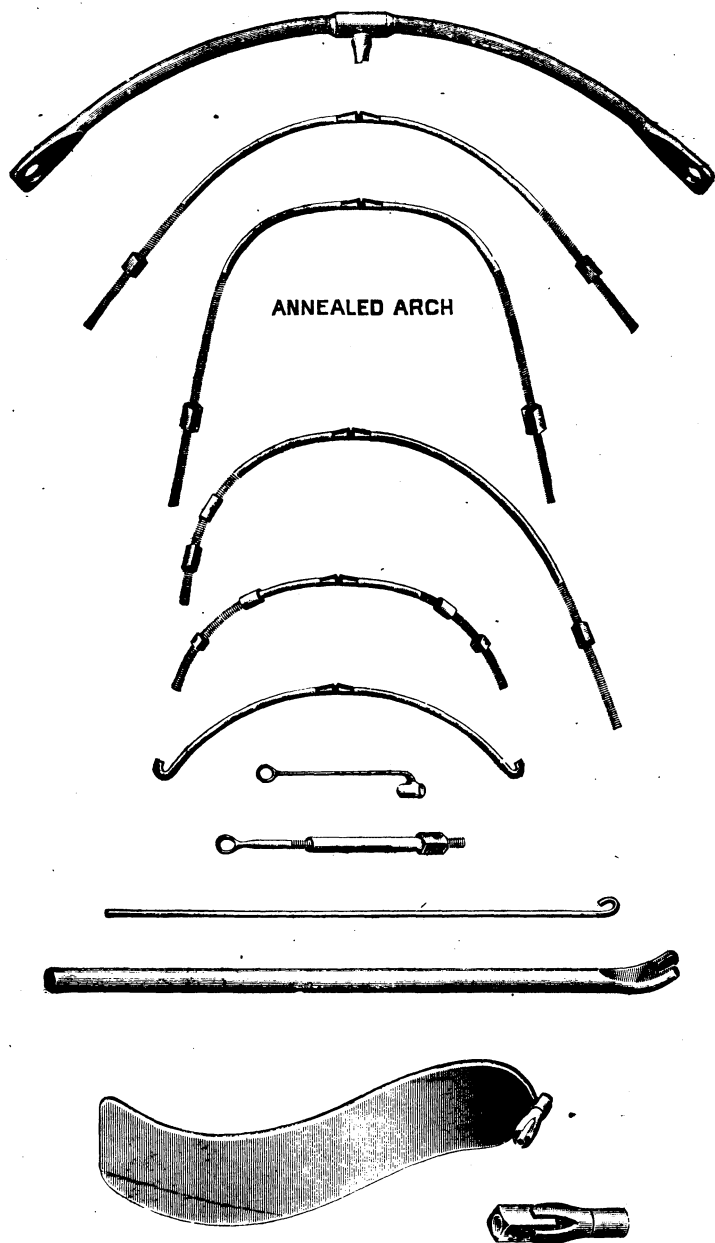


FIG. VI.

*Set No. 1 contains:* One piece of annealed German silver, gold-plated wire, called G, with small pipes R, in it; 1 jack-screw J, 1 sheath E, 1 small traction screw B and C, 1 larger traction screw A and D, 2 coils of band material F and H, 1 bundle of lever wires L, 1 wrench W.

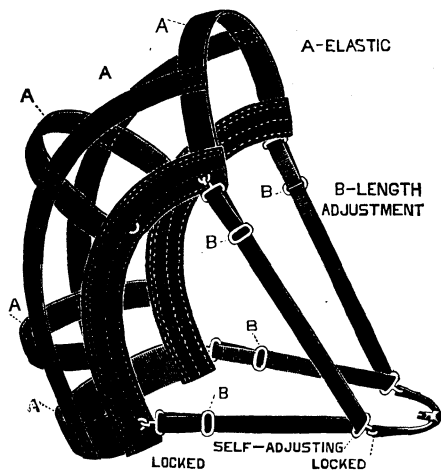


FIG. VII.

*Set No. 2 contains:* Contraction arch B, 2 clamp bands D, banding material C. The extra parts consist of: Head gear, chin cap, expansion arch E, clamp band X, Clamp bands 1, 2, 3 and 4.

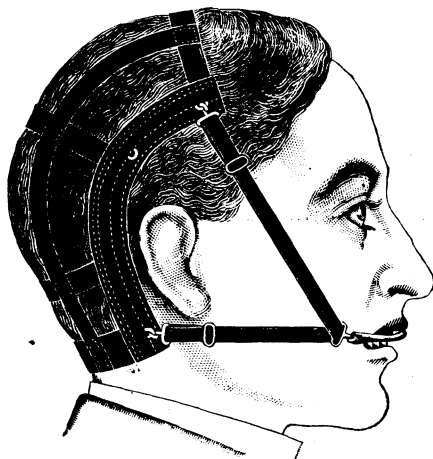


FIG. VIII.

In 1899 Dr. Knapp brought out a set of regulating appliances in which the inventor has displayed considerable ingenuity in way of variety and construction. His appliances consist of lock nuts, ball cap, T-bars, clutch bars, bands, connected with jack-screws and their attachment, wire arch, etc. They are well made but complicated at first, owing to the variety of details in each piece. The principal merit claimed for this set of appliances by the inventor is that they can be applied to any case at once, without modification by soldering. Fig. 4 illustrates the application of some of his appliances for treatment.

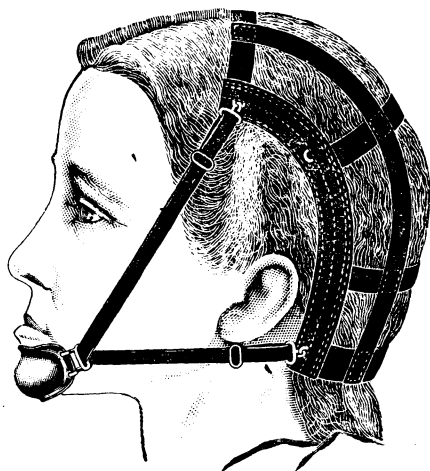


FIG. IX.

In 1900 Dr. Lukens of St. Louis placed a set of regulating appliances on the market (Fig. 5). The chief modification in this set is in the clamp bands. The clamp bands possess one good merit, doing away with the threaded part of the clamp on the lingual surface. In this new clamp band, the threaded part which tightens the band and the tubing for the use of the wire arch, traction screw, etc., are the same. That is, the tubing on the buccal surface is threaded to tighten the clamp as well as being used as an anchor tube. This eliminates the use of the threaded part on the lingual surface. The right angle end of the traction screw is also in the form of a tube; this tube hooks over a wire spur, size made to fit the tube of the right angle accurately.

Dr. Case's new work is not out at the present writing. In this new work, which is expected soon, Dr. Case will fully illustrate the principle and use of all his appliances.

Dr. MacDowell's set of appliances (Fig. 6) was brought out in 1903. The cuts show the traction bar with the five styles of arches

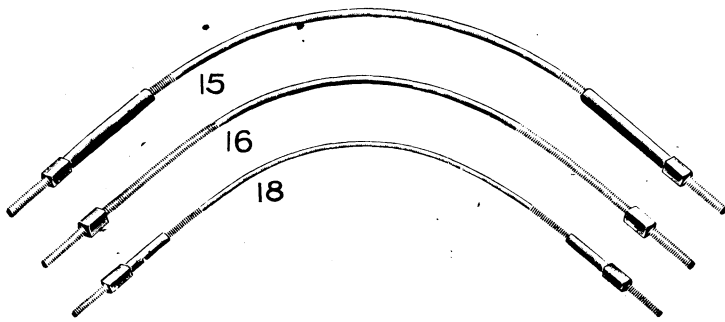


FIG. X.

to be used with head gear and traction bar, two forms of traction screws, and a wrench for putting nuts on the distal end of arches, traction screws, etc., in the mouth. Fig. 7 shows the head gear (Fig. 8) in use with traction and (Fig. 9) with chin cap (Fig. 10), and the three styles of plain arches used.

(To be continued.)

## PROSTHETIC DENTISTRY

By B. J. Cigrand, B. S., M. S., D. D. S.

(Professor of Prosthetic Dentistry and Technics, College of Dentistry,  
University of Illinois.)

### CHAPTER XXIII.

#### THE LOGAN CROWN.

The practice of positioning gold-telescope crowns on laterals or any other tooth anterior to the bicuspid should be condemned, and practitioners who are truly conscientious can not be induced to so violate the rules of aesthesia or so disregard the natural denture. The all-porcelain crown is pre-eminently the nearest representative of the natural tooth, and dentists who are not in a position to bake these crowns can employ the Logan crown to most excellent advantage. The Logan crown has not received the attention it merits, and I am certain if this crown is properly set—and I emphasize the word properly—I am convinced that it will be a decided success both as to utility and appearance.

It is not my intention to delineate my method of placing into the tooth substance a band which I have chosen to call an "Interdental Band," as I believe many of you here are familiar with this system, but I will confine my remarks to the methods embraced in the title of this paper.

In setting the Logan crown, the first step is to grind off the remaining portion of the natural root below the free margin of the gums. Some operators advocate the use of the bur in shaping and trimming the joint end of the root, but it has been my experience that the corundum wheel can be used with good results in the final trimming, as shown in Figure 1. The wheel must be narrow, and of sufficient circumference to allow easy access to the root without liability of interference with the adjoining teeth. Grind the root in such a manner as to describe a concave surface, the concavity being at the labial and lingual point while its mesial and distal margins present an elevated edge, as in Figure 9. The tooth, by this method, is left with firm walls at a point where the strain is greatest and most likely to fracture. By thus shaping the root-end you have not materially weakened the root, and you have made it possible to easily adjust and fit the Logan crown, the latter being beveled from the platinum post. Various sizes and shapes of corundum wheels

are used in properly fitting the Logan to the root, as in Figures 2, 3 and 4. When a large corundum wheel is used, as Figure 2, the stone impinges on the post and often grinds it to such an extent as to impair its strength considerably.

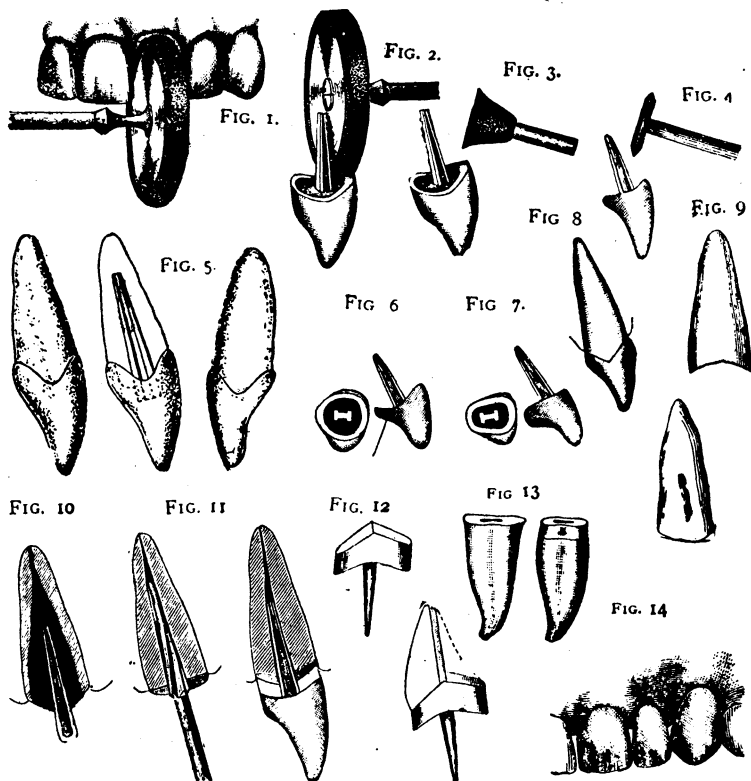
There are many operators who advise us to trim the root like a chevron or roof, necessitating a counter shape to the Logan and thus assuring the latter from rotation, as Figure 5 shows. Many of our present day books advocate this method, claiming that crowns which are set in this manner cannot possibly loosen. In Evans' book, on crown and bridge-work, we find Figure 8 on page 66 and he describes it in these terms: "The obvious advantages of the device are, the readiness with which the slope ends of the root end may be shaped with a file; the facility with which these slopes may be given any angle to set the crown out or in at the base, or at the cutting edge, or give it a twist at its axis; the certainty, that once adjusted the final setting will exactly reproduce the adjustment; the assurance, that in use the crown will not be turned on its axis—a most common cause of the loosening of artificial crowns."

Now this reads well, and the pictorial side of the operation is excellent, but when you apply it in daily practice and observe where the strain lies in mastication, and you carefully study the outlines of the porcelain tooth, as pictured in Figure 8, you will soon comprehend that this method is very faulty and exceedingly difficult to enforce in practice. In the first place we have learned, by sad experience, that porcelain is strong only when in bulk, and when employed in a thin veneer it does not endure. When the crown is constructed as here cited, the lingual portion is very frail, and after grinding it to fit, as shown in Figure 6, the crown has a split or bifurcated appearance, and has been weakened most decidedly. The comment made by Dr. Evans holds true when applied to Figures 7 and 9, and when the root is thus prepared, and the crown fashioned accordingly, you have a perfect fit and a strong crown.

In order to get the best results from the Logan, and afford greater strength to the root, I have found it good practice to follow the advice given by Dr. Ottolengui. After describing how he reams out the pulp canal, in Figure 11, he adds: "A Logan crown may then be ground and adjusted on the root-end and at the same time the crown-post be fitted into the canal so tightly that, independent of the cement, the crown will have a firm hold on the root." This method of sparing root structure and giving additional anchorage



to the metal post gains the approval of all who recognize the principle of force in mastication. Too many operators drill or ream out too freely from the canal, and leave a thin wall of tooth substance to carry the great strain and leverage of the Logan post. Figure 10 clearly illustrates the general practice which prevails in anchoring the Logan crown. A moment's reflection will convince you of the shortcomings of the method.



In using the Ottolengui canal-reamers, it is a mistake to employ a large one and produce a large circular opening into the root to receive the Logan post. Choose a small reamer, and by giving it an antero-posterior movement you are enabled to cut an opening of an elliptical character, and you leave the root structure thick at its lateral sides where the major strain falls, and where the root must of necessity be the strongest. Further, this rhomboidal opening allows the Logan post to tightly hug the walls of the root-canal and thus afford additional anchorage to the crown.

It is evident that a crown set as here recommended cannot loosen or fracture the root unless the post first stretches, and this, I believe, is the cause of many of our crowns loosening. The primary cause does not lie hidden in this, however, but in a factor of which I will write later. If the posts in the Logan, or in any of the full porcelain crowns, were made of iridio-platinum, instead of pure platinum, there would be less likelihood of the yielding process, and the stability of the crown would be more assured.

After having given the root this special shape, grind and adjust the Logan crown to the root. Then select the proper sized trephine, place same in the handpiece, and with a few rapid revolutions of the trephine the intradental groove is produced. Now make a gold band complementing the respective trephine-stump on the gauge-mandrel, and after soldering the band and trimming off the rough portions you are ready to set the band with cement. But before setting same, it is well to put a plug of cotton in the root-canal to prevent the cement while attaching the band from filling up the canal. Mix the cement to creamy consistency, add cement to the two surfaces of the band, and register it over the trephine groove, then press it home. Let the cement thoroughly set, and with corundum stone grind the band even with the trimmed face of the root.

The next step in setting the Logan, so as to attain enduring success, is of great importance and must be carefully executed. Place a sparing amount of oxyphosphate on the post-portion of the Logan and paint the joint-ends of the porcelain with a film of chloro-rubber, the latter being produced by adding chloroform to red rubber in a sufficient quantity to make a thick paint. Having thus prepared the Logan, and having protected the root from moisture, insert the post and gradually bring the Logan into the desired position. I frequently employ, instead of the chloro-rubber, a thin band of gutta-percha, heating the crown with the latter and then applying the requisite cement. This method has been advocated for some time, and it has been shown that gutta-percha has all the properties necessary to withstand the action of the acids of the mouth, and as a representative agent against caries, even where every other material has proven a failure. I have found that chloro-rubber is fully as good and possibly better for this particular service, in that it can be handled with greater ease and does not become aged so soon.

The earliest reference I have been able to find regarding this method occurs in the *Dental Cosmos* of 1887, p. 749, and reads:

"Dr. Richmond usually takes a thin, perforated disk of gutta-percha, pushes the post through it, warms the crown, presses it into place, and when cooled removes the crown, and with a sharp knife trims away the gutta-percha close to the crown-neck. He then warms the crown, puts a very little oxyphosphate cement on the post, and presses the crown home."

I have had excellent results during the past three years, since I have employed chloro-rubber in combination with the cement, and I hope to emphasize the necessity of sheltering the cement by some agent congenial to the oral tissues and capable of resisting the action of lactic and hydrochloric acid.

It is very important that we give careful attention to the manner in which we mix the cement. If we hope to perfectly anchor the crown, we must be certain to incorporate a liberal amount of powder into the mixture, and stir rapidly; since the fluid with but a sparing quantity of powder cannot endure a strain. Even the temperature under which the cement is formed has much to do with the strength of the cement. Cement gives the most favorable results when mixed in a temperature of seventy-five degrees, F. D. Hease, of Germany, recommends that we mix the cement on a bottle having four flat surfaces, and fill the bottle with cold water in hot summer weather, and hot water in cold winter weather, I have resorted to this method, and am decidedly pleased with the good results; prior to learning this simple method, I used a porcelain slab in summer, and a block of enamel paper in the winter.

This matter of the consistency of our cements has more to do with insuring durability of the crowns than we now think. Strange as it may seem, we have learned that cement fillings which are put into cavities during extremely hot or severely cold weather, do not prove to have enduring qualities, and this must be the case with Logan crowns which are set under like circumstances. A sparing amount of powdered borax added to the cement mixture will cause the latter to set quickly, and give a hard and more tenacious cement product.

It has been advised by some to band the Logan and by this means assist in strengthening and retaining the crown. Figure 12 is a reproduction of a crown receiving a "circumdental band," and it is unnecessary to call attention to the injurious results accompanying the use of so wide a ferule; and the circumdental band when anchored on a root should receive preparation, as Figure 13 demon-

strates the imperative reason for this step, and when this treatment is discarded the crown will prove a most discouraging failure.

The ferule which all operators now produce to surround the necks of the teeth, I have designated as the "circumdental band," such as we have on the Richmond crown. Practitioners have recognized long since that the circumdental band is not an ideal appliance, and that it has features which make it undesirable, and among these demerits we chronicle that it obstructs the intradental space; that it impinges on the living tissues; that it is unsightly and contrary to dental aesthesia; that it induces pain; that it is easily broken; that it generally affords lodgment for food, and in turn harbors pathogenic organisms.

Notwithstanding that the Richmond crown is an aesthetic dental appliance, there are innumerable defects which induce us to look about and design new ideas, in the fond hope of obtaining a crown which may approximate nature and yield hygienic and physiological results equal to the demands of nature.

In assembled-crowns, as I prefer to call bridgework, we must admit that the Richmond occupies a place which cannot be substituted by any of the several crowns now in use. This fact is due primarily because it is a combination crown, constructed of porcelain and gold, the latter acting as a medium to which can be readily soldered the adjoining artificial teeth; but I am of the opinion that porcelain dental art will in the near future be in full possession of the domain now controlled by it.

There is one other feature of the Logan crown which receives too little consideration, and this is the shade selected to match the natural teeth. Invariably the Logan is entirely too light in shade, and consequently attracts undue attention to the dental artifice. We must remember that "It is true art to hide art," and it is our mission to reproduce nature, in some cases, even when this divine product is crude and abnormal. Better results can be attained if we choose a tooth somewhat darker than you first conclude—artificial teeth always appear lighter when placed in the mouth where the tissues lend a background reflecting the true harmony.

Many operators do not aim to imitate nature, and hence the result is abortive. Often when the Logan might be slightly turned or deflected so as to lend natural appearance, they are positioned in such a manner as to completely deny their aesthetic purpose.

We are seldom called upon to substitute a Logan crown but what the natural denture invites that the Logan be materially altered

in its general outline. Eighty per cent of the Logans set are not changed, excepting at the contact surface, and even this surface is not sufficiently changed to perfectly fit; while this large percentage should be modified most materially to complement nature. The cutting edge often should be cut flat, or given the irregular outline resulting from usage. The anatomical lines of the natural teeth should be accurately copied. The labial surface of the natural teeth often indicate that disease and severe fevers have been guests, and when we substitute a Logan in these cases it must bear these same symbols, while the mesial and distal surfaces must be trimmed and shaped to harmonize with the general statue of the patient.

A recent published proceeding of the Illinois State Dental Society reports as follows, regarding my clinic: "Clinic No. 35, Patient, Mr. J. Hynes, presenting a broken superior central, the other natural teeth being a case of arrested or interrupted development. Dr. Cigrand set a Logan crown on the prepared root, and so ground down the surfaces of the Logan as to perfectly match the natural denture. The peculiar matched surfaces with sunken lines and irregular depressions were produced into the Logan crown by grinding down the artificial crown at points corresponding with the natural."

The Logan can be employed in all cases of a similar character. Ill-developed teeth, as the Hutchinson, can be mutilated in like manner. In the clinic just referred to, I completely ground off the glistening labial surface with corundum wheels, and after subjecting the tooth to hydro-fluoric acid and this gave the Logan crown a life-like appearance. All artificial teeth, the Logan included, have too marked a gloss to appear natural; a diminution in this brilliancy will add considerable to their usefulness.

Those dentists who have a dental furnace can stain the Logan so as to perfectly reproduce the lost natural crown. How unbecoming and painful it appears, when the partial natural teeth whose several cavities have been filled with various filling materials the adjoining porcelain crowns off shade and so illy positioned as to present a hideous contrast. We are just beginning to learn of the possibilities in both prosthetic and operative dentistry, and the dentist who hopes to merit the confidence of the rising generation must model after the patterns found in nature; his daily studium must carry him to the laboratories of animal life, and his judgment must be sharpened by keen observation.

**OPERATIVE DENTISTRY**

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By R. B. Tuller, D. D. S.,

Clinical Professor of Operative Dentistry, Chicago College of Dental Surgery.

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**CHAPTER XXIII.**

In what has preceded this in regard to porcelain inlay making, reference has been made only to high fusing bodies which requires a matrix of platinum. It has been shown that with high fusing bodies, a foundation material is first used of higher fusing properties than the enamel which follows and that a foundation is made approximating the general outline of the inlay to be, leaving room enough to surface with the enamel in which are embodied the colors that govern the shading. The impression of the writer is that high fusing porcelain is more generally used than the so-called low fusing. In the latter there is no special foundation body used, but the inlay is built up in same material throughout.

The fusing point of this material is below the melting point of pure gold, therefore, matrices can be made of pure gold, and gold is much easier adapted to the cavity than platinum. It also may be used thinner than the platinum, or 1-2000 of an inch in thickness. No. 30 rolled gold foil may be used. The same rules generally apply in using gold as in using platinum, but more delicate care must be used, and especially in removing to prevent springing. The use of camphor gum packed in the matrix, as has been described heretofore, will do much to prevent springing in removing and investing. Investment is necessary with the gold matrix, and a mixture of fine powdered asbestos, of good quality, and water is commended as the best investing material. The quantity needed for the purpose is put in a little nickel or platinum tray small enough to readily enter the muffle or oven and the gold matrix is gently jarred down into it. When this is dried out it is ready for the introduction of the porcelain. This material is wet up with 95 per cent alcohol, instead of water, a dropper being needed to renew the alcohol at frequent intervals because of the rapid evaporation. In wetting up what is already in the matrix and too dry to manipulate, alcohol may be freely dropped over it without fear of the mass settling down or running over onto the outside parts of the matrix as would be the case if water was used.

When the building-up is done ready for the bake, the alcohol must be driven off by a gentle heat before carrying it into the furnace or blow pipe flame; to avoid bubbles in the interior of the porcelain.

With this low fusing body there is no jarring down of our material in the matrix as is done with a water mix, but the shaping-up is done with a spatula, and though the instrument marks show on the surface the mass is so molten in the furnace or flame that all the little inequalities blend into a nice smooth surface. When water is used, the jarring down is necessary to get the material compact and to bring the water to the surface where it may be absorbed, but water is not recommended. In the first place a layer all over the bottom of the matrix is not, at first, wanted; but some portion is built up into a sort of pyramid which is baked and that forms a nucleus for all that is to follow, and is not likely to change much during the course of subsequent bakings, unless allowed to heat up too high or too long. Low fusing material becomes more liquid when at the fusing point than the high fusing; hence, must be watched every second so that it shall not settle down more than is exactly correct. This watching the case in a gas or gasoline flame is nothing to the injury to the eyes that comes from the bright glow of the electric furnace at high heat.

There is one thing above some others to commend the low fusing method and that is the facility it gives with a very simple outfit to make porcelain inlays; since with a gas or gasoline blow pipe, or even a simple Bunsen burner with large enough flame and a few appurtenances they can be made almost anywhere. If one gets a full and complete outfit, together with a full set of shades, the cost is considerable; but nine-tenths of the inlays are made with rather a small range of shades and to begin with many items of a full outfit may be dispensed with, and others the dentist probably has, or something that will answer the purpose. Without some knowledge of the *modus operandi* of making inlays and the baking, one would hardly be able to utilize a Bunsen burner to advantage, and especially some small ones, or some that do not give a properly oxygenated flame. Gasoline, under air pressure, will do good work usually.

Low fusing material certainly does bring out some beautiful inlays with a brilliant finish. It is too glassy for some dull looking teeth,

but that may be regulated some in the baking, or the glassy look may be taken off some after setting and the cement hard.

The claims made for low fusing material, and especially Jenkins', is remarkable resistance to crushing force, great edge strength and naturalness of colors and shades; and also that it may be ground and polished to a very high state of perfection if need be, the material being the same all through and very dense.

Some operators using high fusing porcelain have no use for the low fusing and some users of low would not attempt to use high. Each operator must determine the choice for himself and should use that with which he can do best. An expert worker in porcelain in Chicago, of many years' experience, uses both high and low as he sees fit. In the opinion of the writer that is a most sensible way to do. There is good in both, and no good reason for confining oneself to one and holding the other in contempt; except, as has been said, that an operator, personally, naturally favors the kind that gives him the best satisfaction.

Low fusing bodies may be readily superimposed upon high, if one desires and remembers the difference in time and degree of heat. Of course it goes without saying that high fusing cannot be satisfactorily superimposed on low fusing, for the latter would melt and the gold matrix as well.

Diverging from inlays for a moment the writer desires to speak of a combination material, porcelain and cement, that is being brought to a reliable state of perfection in Chicago which bids fair to be an important feature in porcelain work in certain cases. When mixed up to a putty-like condition it may be pressed between the end of a root (and quite irregular shaped one, at that) and a Logan crown, for instance, selected and pin fitted, and allowed to harden. As soon as it is hard the crown with cement is taken away and trimmed and then baked. Some shrinkage takes place, and to remedy that, a little more of the cement is added and again pressed to the root. When this is removed and baked as before, it is usually an absolutely perfect fit to the end of the root. If not, a little layer more is added and again pressed to the root and removed, as soon as it is hard, and again baked. Adjusting further is rarely needed but crown is ready to set. The mix that has been added is as hard and dense as the crown itself. It has been used to make an entire molar crown that fitted to the irregular root or broken-down tooth like an inlay. Pins may be baked in it, if needed, to extend into the



root. The color is a yellowish white (or any shade desired), but it has no translucency like porcelain and yet as a molar it looks very much like some teeth found in some mouths that are dull and opaque; and, certainly, when carved up to natural shape it looks very natural. The bulk of a tooth may be made of it and then may have a porcelain veneer baked over it, bringing it to a more life-like appearance.

This cement-porcelain is very sticky until hard, hence oiling the root or part to which it is applied, to get an impression, is necessary. If root is to be banded, it must be done before using this material, and impress taken with band in place.

Now, posterior teeth inlays can be made of it by pressing the mix into the prepared cavity and molding it as desired before it hardens. It then may be removed and baked; then refitted with new material added, and again trimmed up and baked; and the third time if necessary, or until the shrinkage has all been taken up. The material is very strong and tough, in bulk, and it certainly bids fair to make a good filling, or inlay, rather, for posterior teeth, and it may be veneered with porcelain if desired. The substance is not yet on the market; but as many practical tests in the mouth have been made, it no doubt will soon be found available, as it has proven very satisfactory up to this date.

(Continued.)



**DENTAL THERAPEUTICS.**

(By Geo. W. Cook, B. S., D. D. S., Chicago, Ill., Professor of Bacteriology and Pathology, University of Illinois, Professor of Oral Surgery, Dearborn Medical College.)

**CHAPTER XXII.**

We have previously called attention to certain features of the inorganic salts, and previous mention has already been made of the part played in the body of certain forms of the higher animal life. The salts of potassium, sodium and magnesium are intimately associated with, and take part in the physiological function of both the vegetable and animal kingdom; and as medical agents have been used as compounds of chlorides, sulphates, iodides and bromides for certain eliminating powers. While it has been impossible for the subject to be discussed in anything like a complete manner, their pharmacological value has been discussed to the extent that their use as eliminative agents is of sufficient importance to place them among the agents to be used in certain forms of disease, such as local infection, like gout, rheumatism, pyorrhea alveolaris, alveolar abscesses, etc.

Among the elements known as inorganic salts and those which enter into and form an important part in the animal kingdom, we have not mentioned calcium salts which play such an important part in the formation of bone and teeth of the vertebrate, and are present in large quantities in the shells of the invertebrate. The so-called lime-salts of the bones and various calcific formations in the animal kingdom is the result of certain physiological cellular activity, which appears in the early embryological cellular development of certain differentiated cells of the body. While this salt does not enter into and take such an important part in therapeutics, nor does its value appear to be so great as that of potassium, sodium or magnesium, its discussion here is not at all out of place. It possesses comparatively few soluble salts, therefore it does not affect such changes in the fluids of the body as has been described in the previous salt action.

The compounds of calcium do not penetrate into the various tissues of the body, therefore we are reminded at once that possibly it does not have as much affinity for the tissues as some of the other alkaline salts. The soluble calcium salts are absorbed from the stomach and intestines with a great deal less activity than many of

the other salts; and their cathartic action is very much retarded because they are thrown out of the body very easily with alkaline fluids. They also form certain insoluble salts with the acid ions which are sometimes present in the intestinal tract, thus preventing the double action that takes place with certain of the saline cathartics. A considerable quantity of the calcium salts taken in with food stuff is also thrown out **with** the waste products of the intestinal tract; however, there is always a small quantity absorbed and is found circulating in the blood, probably combined with a proteid which is slowly excreted, unless there is a limited supply in the tissues. If the necessary quantity of this agent is found **in** the tissues of the body the amount absorbed would be somewhat increased. When a large quantity of this agent is intravenously injected the calcium of the blood will be somewhat higher for at least some time. This excessive amount will not circulate in the blood for any great length of time, but will be deposited in certain organs of the body and from there eliminated and thrown off as a waste product.

While a part of the calcium is excreted in the urine a larger part passes through the epithelium of the large intestine. Abel and Muirhead have shown that the calcium taken in the form of hydrate is excreted in the urine as calcium carbonate. The carbonate is a very unstable salt and breaks up in the urine, setting free carbonic acid and ammonia, while the lime salts are set free to recombine as a carbonate which gives an alkalinity to the urine, and the odor of ammonia can be detected. An excessive amount of calcium in the urine always lessens the quantity of phosphates by forming an insoluble phosphate, and in many instances passes off as a calcium phosphate. The same may be said to be true of the intestinal tract. The calcium forming an insoluble phosphate from the food stuff in the intestines calcium phosphate is eliminated from the intestinal tract as calcium phosphate; thus in many instances prevents the necessary quantity of phosphates from being absorbed into the tissues, and consequently the tissues may not only suffer for the lack of the necessary quantity of calcium but for the necessary quantity of phosphate as well.

As has just been said, the calcium that is present in all food stuff is usually sufficient to supply the necessary quantity of this agent in the body substance, except under certain circumstances. Therefore, it would seem that calcium administered as a therapeutic agent would have but little beneficial effect in supplying the needs

of the calcium in the organism. The compounds of calcium used as a therapeutic agent owe their beneficial effects to the anion; for instance, calcium bromide would be beneficial only so far as the bromide ion would be taken in and utilized by the body substance.

When the soluble salts of calcium is injected immediately into the circulation of the blood they accelerate and strengthen the heart's action. If poisonous doses are injected they arrest the heart's action in systole; they depress the nerve centers, causing narcosis, and sleep.

It will be seen from the above physiological processes of reasoning that from the ordinary administration, the therapeutic properties of lime salts are of little value in comparison with many of the other inorganic salts. A question that naturally arises is, When the deficiency of lime salts manifests themselves in the body how can this deficiency be supplied? While it is true that the normal, full grown animal suffers but little for the want of calcium, on the other hand it has been observed and taught by a great many authors that certain diseases, or deformities, may result from the deficiency of the calcium salts in the body. The deficiency of lime salts in food has been investigated by a number of careful observers, and some have fully established to the satisfaction of their own mind that young growing animals develop certain abnormalities when the calcium is deficient in the food stuff. The symptoms manifested resembled that of rickets and osteomalacia. In those cases resembling rickets in the human individual there seemed to be a deficiency of lime salt in the bone.

Ringer's investigation showed that the action of the frog's heart when treated with alkali salts with the addition of small traces of calcium was increased and that the animal survived much longer than it would when these salts were used minus the minute quantity of calcium. Both the heart and skeletal muscles failed to contract by an electrical stimulation when profused with physiological salt solutions, minus the calcium, but when traces of calcium were added to the salt solution the heart's action revived.

The various experiments conducted show that the irritability of nerve tissue is very much longer preserved in a salt solution containing calcium, than it is in a solution minus the calcium salt. The same is true of the ciliated epithelial cells with reference to their activity in the presence of six-tenths of one per cent of sodium chloride solution containing calcium. All of the above experiments

have been repeated by a large number of experimenters, with many other features relative to the physiological importance of calcium. It has been shown that if calcium be taken from sea-water that fish soon lose their activity, and their eggs fail to develop to any great extent in water freed from calcium salts. While the calcium salts play an important part in the physiological role of living substance it also has an important bearing on other certain processes; for instance, rennet will not coagulate milk except in the presence of calcium salt; blood will refuse to coagulate when the calcium is precipitated in the form of an insoluble oxalate. It has also been shown that calcium salts are necessary in the formation of fibrin, and certain fibrin ferments are not formed except in the presence of calcium salts.

It has just previously been stated that the higher organisms of both plant and animal require lime salts for certain of their functional activities, and the lowest forms of life including that of bacteria and certain of the mold fungi can apparently exist in the absence of certain of these calcium salts. In the so-called lime starvation of certain of the higher forms of life it does not occur because of the insufficient quantity of calcium in the food stuff, but because it forms certain insoluble compounds with substances already present in the body or food stuff; and thus the animal or plant may be deprived of the necessary quantity of calcium because of a certain chemical reaction that is taking place in the digestive apparatus. It has also been observed that a very peculiar reaction takes place between calcium and potassium salts, as when a frog's heart is perfused with a sodium chloride solution containing traces of calcium, the movements are not entirely normal, the contractions being somewhat prolonged and relaxation much retarded. If a trace of potassium chloride is added the contractions becomes more normal in character, on the other hand, the effects of potassium on a frog's heart is antagonized by the addition of calcium. The same holds true for the voluntary muscles. The salts of calcium tends to neutralize the effects of potassium and vice versa.

The therapeutic use of calcium has been recommended for different purposes. It has been extensively used to lessen the acidity of the stomach and the oxide of calcium has been used as a caustic. In both instances, however, it may be stated that their effects are almost entirely due to the anion of the molecule. From what has previously been stated it will readily be seen that the value of cal-

cium as a medicinal agent is very limited. It will be borne in mind that its use in medicine has been to supply the deficiency of the calcium in the body. The conditions which have principally attracted the application of calcium in disease are rickets and osteomalacia, a condition that beyond question is due to a deficiency in the quantity of lime salts in the bone, and for this reason certain investigators have found that when calcium salts has been withheld from the animal body these animals show signs of the diseased conditions above mentioned. But, however, observations have shown that in case of rickets children fed on cow's milk, rich in calcium, more had this diseased condition than those nursed on mother's milk, and patients suffering with rickets absorbed lime and excreted it in the same way as normal persons, although their bones contained much smaller amount of lime than did the normal individual. Therefore according to this observation rickets is not due to a lack of lime in the food, nor is it due to a lack of calcium in the food stuff, but a condition exists which prevents the lime salts from being deposited in the bony matrix, although the lime is in normal quantities in the circulating fluids of the body. And what is true of rickets is also true of osteomalacia. In all instances that have been investigated the treatment of these diseases by the administration of certain soluble compounds of calcium is of but little or no importance, for the reason that the calcium taken in as food stuff is as easily assimilated, if not more so, than any form that could be administered as a medicinal agent.

The preparations that are usually administered will reduce the acidity of the fluid, but is not as efficient in this direction as the hydrates of the alkali series. Neither are they as easily absorbed. However, it must be mentioned that this is not objectionable, for the simple reason that they are slower in their action and in some respects their alkalinity is equally as efficient. Certain of the calcium compounds have an astringent effect which is very beneficial in certain intestinal disturbances. Their action is valuable in the intestinal tract in forming an insoluble proteid compound on the surface of the intestinal wall, thus protecting the tissue from certain irritating agents. Lime-water is sometimes administered in vomiting, caused by a dyspeptic condition. It is also added to milk for the administration in typhoid fever of children. In this instance it is probably very beneficial, for the milk treated in this manner coagulates in much finer particles and in this condition is much more easily di-

gested. In case of acidity of the stomach calcium is not as valuable as magnesia, because it tends to allay the evacuation of the bowel. In case of acid poisoning the milk of lime is very much more beneficial than if administered in the form of lime-water.

While it is a fact that the physiological benefits of calcium in all of the fluids and tissues of the body is beyond question one of the essentials of the physical properties of life, still there seems to be no

Dental Journal 25P Feb9 Berryman FIVE means whereby we can supply this want other than by its being taken in with food stuff. Volumes have been written upon the feeding of children rich in the phosphate of lime and various other compounds of calcium for the solidification of bone and tooth substance, and apparently no one has given conclusive evidence that such applications are of any special benefit in these cases. In a recent paper before the International Dental Congress there was a paper containing many interesting features upon this line. The author admitted that all of the previous experiments and observations had proven to be of no importance, but that the use of the lime taken from the bone of animals proved to be beneficial in the hardening of the teeth and bones of animals suffering from lime starvation. If it be true that calcium deficiency can be supplied by the use of the calcium taken from a synthetic product, like bone, this is certainly an observation of great value in an important direction. It also is a strange physiological condition which deserves farther scientific investigation as to what the difference may be between the synthetic compounds of calcium as found in vegetable and animal tissue and taken as food stuff, and the synthetic product of the same element taken from the bones of animals. But as no one of these subjects have been very definitely settled there is but one conclusion that we can derive, and that is, that calcium salts as a medicinal agent will not supplant any of the other inorganic salts.

(To be continued.)

# ORIGINAL CONTRIBUTIONS

## TOOTHsome TOPICS.

By R. B. Tuller.

Are

You a

*Cosmetic*

Practitioner?

Or just a go-as-you-please sort of an ordinary freckle-maker?

Are you a glass blower? If not, why not? It's great!

You have to be a glass blower to be a cosmetic dentist.

A glass blower in dentistry, according to Don Magaphone G., is a worker in porcelain.

When porcelain inlays are made that are several points off in shade he designates them glass freckles.

Well, now, me for the modest glass freckles in preference to the gaudy, shiny gold ones.

And even if I wanted to make a gold one, I'd rather, in many cases, make an inlay of gold than a pile-driven, riveted-in filling.

Oh, no, I have not put away my pluggers yet. I still find them useful about a good many things, and I still preserve my "automatic," though it is resting up a good deal from the arduous labors of the past.

Me for the glass blowers, however. Me for the glass freckle in place of the giddy gold. Me for the cosmetic operator who studies to beautify—*does* beautify.

Oh, yes, there is beauty in gold in proper places, but "cut it out" when it comes to putting it conspicuously in anterior teeth.

You know the bully boy with a glass eye? Said eye is a work of art from the hands of the glass blower, but it is not altogether beautiful in all positions.

It has a way of staring at you in a vacant sort of look, sometimes, while the other eye goes wandering after a pretty girl further down the car.

But say, how would it impress you if that eye were made of beautiful burnished gold? Wuh!



There is no accounting for tastes. Judging from the number of gold crowns I've seen late years, upon front teeth, I don't know but there are people who would be rejoiced if they could wear an artificial eye of gold; and I don't know but there are oculists who would put in golden eyes if they could get \$10.00 or \$15.00 per.

There are people who would, no doubt, wear a golden eye (if occasion required—perhaps over a good eye) if it were but fashionable. The ready-money people would no doubt have a diamond or some other jewel set in the center. In the center, of course, or they would have a case of artificial strabismus—jaundiced and jewelled.

Well, now, let me tell you, the golden front tooth comes pretty near being as absurd and ludicrous a distortion of Nature's handiwork as a gold eye; or a gold nose, if one had the misfortune to have that member cut off.

Next to the gold tooth comes the glittering gold filling, and particularly in front teeth. We can tolerate them (or rather the gold inlay) in back teeth.

Do you know that we porcelain inlay workers—we *fine cosmetic* inlay workers—are veritable martyrs to a noble cause? Well, that's what we are. When Mrs. Jones finds a lot of black holes disfiguring her front teeth, and goes to a dentist who hammers in gold, and a creditable job, of course, all her friends remark, "Why, Mrs. Jones, you've been having a lot of gold fillings put in. Who is your dentist?" and thereupon her dentist is advertised.

The same applies to the gold bridge with its copper-toed appearance. Like the gold filling it is in sight—in evidence, and cannot be denied as a piece of prothesis. As gold goes, or gold and porcelain combined, it is a fine piece of work—and a constant "ad."

But our porcelain, oh, that, when skillfully done, is the art that conceals art—the highest degree of art. That being the case—art being concealed—there is nothing to comment upon except what is presumed to be the beautiful handiwork of the great Creator. The few intimates who saw the case "before and after" realize what man has done, but the casual observer sees nothing false—and *we* get no golden "ad."

To illustrate: Miss A. came not long ago to Chicago quite a stranger. The fame of Chicago inlay workers having gone abroad she visited one to have over half a dozen front gold fillings that were failing removed and porcelain inlays inserted. I—that is, the dentist, produced a wonderful transformation in a short time and col-

lected a fair fee from a cheerful payer. It ought to have brought ten more patients, but it hasn't yet.

Not long after her inlay work was done she became the wife of a well-known and wealthy Chicago merchant. Thus her stay in this city becomes permanent. She is an unusually charming woman, physically and in manners, and has attracted many friends, all of whom never fail to remark her beautiful teeth as most prominent among her beauty marks; but not one among the host has a suspicion that those organs have ever been disfigured by decay, or that fillings of gold once twinkled out from between her lips.

They see just a row of apparently very nice perfect teeth, such as Nature sometimes bestows, if she does not always preserve them. I am not sure that her husband knows that there are a lot of repairs in them. None of them are of the freckle order but correspond extremely well with the complexion of the teeth.

Now, it is quite natural that Milady is quite willing to let all these new friends think their thinks as they are inclined. She sees no reason why they should be disabused of their impressions, and told all about how her teeth used to be. On the contrary, she can say truthfully, though not an extremely young wife, "I haven't a false tooth in my mouth."

Yea, yea, we "fine workers"—we glass blowers—we cosmetic dentists—are veritable martyrs, working for the highest good of mankind and the glory of God; and, as Mr. Dooley says, "There ye air."

In another case I put in several anterior inlays for a lady and the husband said: "I can't see where anything has been done." I thought at first he intended a delicate compliment, but it seems he rather expected a setting that was distinctly visible, perhaps like a pearl. Not gold, of course, for I took out gold, but something brilliant and noticeable—a jewel. But he was soon convinced that the art that conceals art was the very best after all.

A dentist had a little boy about six years old when a neighbor boasted a brand new one. In due course of time the new one developed some teeth. Georgie was in there and heard the mother remark to visitors, that baby had two new teeth, and Georgie got sight of them. Shortly after he returned home and announced the fact to his mother. Then, with the instincts of the dentist's child, he asked, "Mama, where'd Baby Brown get them teeth?—did papa make 'em?" "No," said the mother, "God made them." Georgie's

eyes opened wide as he asked, "Why, ma, is God a dentist?" Then he continued about as follows: "He can't beat my pa anyway. You ought to see them two measley little things Baby Brown's got. Papa would 've made 'em eight times bigger, and he'd made 'em of gold, too;—an' they hain't got nothin' to hit 'ginst, an' I wouldn't give two skips for 'em. Brown's is rich enough to have gold teeth for their baby, hain't they, ma?—like pa made for Mrs. Holdom? Gee! but them's dandy. Me an' Jimmie Post allus looks to see which 'll see 'em first when she comes along. She uster be awful cross; but now she smiles when she sees us, an' Jim he said he seen 'em first, an' he hollered, 'I seen 'em, I seen 'em'; an' I says, 'gwan! I seen when my pa was makin' 'em.' An' ma, pa said to Dr. Bellows, 'Make 'em? You bet I make 'em 's long 's the dum fools want 'em!'—Jim, he's stuck on 'em an' said he was goin' to save up his Sunday-school pennies an' have one put on his tooth what got hit with a base ball; but he knew where he could get one for a 'dollar up.' Say, Baby Brown's teeth are only stuck in and pa drives them gold ones in so's they'll stay if they don't come off—like Mrs. Pelton's, just eatin' a little piece of soft bread, an' pa said she lied, after she'd gone. She said she swallowed it, too, and pa said to her 'You must of coughed it up again,' an' she said, 'Yes, I did,' an' 'en pa he coughed. Say, ma, Baby Brown thinks he's smart showin' off them teeth an' he tries to bite everybody what puts their fingers in his mouth. I'm glad that Baby Brown ain't my brother. His pa he calls him Buster Brown, but he can't bust a thing. Say, ma, when pa was makin' Mrs. Holdom's gold teeth he picked one up when it wasn't cool yet, an' then he throwed it on the floor and stuck his hand in cold water, and danced on two feet and said something I can't 'member; an' then he stepped on the gold tooth and made it all flat, jest the way he didn't want it, and he said, 'Dum a dum fool of a dentist anyway;' an' then he got cross an' tole me to git out, 'at he didn't want me 'round; but I seen them gold teeth all the same 'fore Jimmie did. Say, ma, is a dentist the smartest kind of man there is?

(Toothsome Topics every month).



# ***ABSTRACTS and*** **SELECTIONS**

## **FORTY-NINE YEARS. AGO.**

The following articles were taken from the Dental News Letter of July, 1855, and we believe will make interesting reading.

### **EXTRACTS FROM THE DENTAL PERIODICALS.**

By J. R. Mc.

*American Journal of Dental Science*, for April.—In a short article "On the Treatment of Teeth when the Nerve is endangered by Caries," by J. L. Williams of Boston. The writer refers to the "protecting and recuperative power of nature," and gives the following method of practice:

"I prejudged, that, in cases where the nerve being very nearly exposed by the advance of decay, if the diseased action could be retarded, the pulp would improve the time so gained to throw out its defence against the approaching danger in the form of secondary dentine.

"With this idea I commenced the trial. At first, after removing as much of the caries as could be done without injuring the nerve, I made use of various applications having a tendency to arrest or retard decay; but later, adopted astringents and chlorine solutions mainly; which I still continue with a success that often surprises me.

"The cavity having been thus prepared and treated, is made dry and stopped\* temporarily, for from two to six months, the time depending on the apparent activity of disease; when the stopping is removed, further excavation made if it is found safe to do so, the applications renewed, and the cavity again stopped.

"This process is repeated until the caries cease to be active in its character, and a solid floor of dentine is found in the cavity. Then thorough excavation is performed and a permanent gold filling put in. The tooth thus retains its full natural health and permanency, as if the nerve had never been endangered.

\*I use the word stopping, for the temporary, and filling, for the permanent operation.

"I find the most convenient material for a temporary stopping, to be gutta percha, with sufficient fine spar or silex mixed with it to remove its elasticity when warmed. A portion of oxid of tin, mixed with the same, renders it perhaps more preservative, but may be objectionable from its liability to produce discoloration."

In a note to us by the author, he expresses his willingness to answer any communication in regard to the minutia of the treatment proposed.

"Sketches of the Knowledge of Teeth.—The Origin of Medical Science, by Geo. Hayès, Esq., London." This is a very interesting sketch, and one which we would be pleased to transfer in whole to our pages (the only way in which we could do it justice), but for want of room. It gives some facts as to the antiquity of the dental art, and of its first operators, and other items of like interest, highly instructive.

*Dental Register of the West*, for April.—Much of this number is occupied with a full report of the "Twelfth Annual Meeting of the Mississippi Association of Dental Surgeons," which was held in Cincinnati, in February last. A small portion of these proceedings we gave in our April issue, and now make additional extracts from the same.

In the report of the Committee on "Dental Progress," in alluding to the improvement in the dental journals, on the score of bitter personal discussions, they say:

"The prolonged and disgusting quarrels, the personal abuse and vituperations, are now seldom seen in their pages. We are glad to be able to state, that articles of the class referred to, if written, have been, except in a few cases, for the past year excluded from the periodicals."

We give this extract as a fact of great importance, and, we think, highly honorable to the periodical press; but we can assure the committee and the profession, that this improvement has not been accomplished and maintained without many annoyances to those conducting the various journals, resulting from a pretty stringent and determined censorship; at least, such has been our experience. The improvement, however, in this respect is marked, and therefore deserving the expressed commendation of the profession at large.

A series of questions were propounded by the executive committee, which were taken up separately and discussed, the substance of which we shall now endeavor to give.

"3d Question.—What are the best means of drying out cavities?" In answer, the various substances usually employed; such as cotton, bibulous paper, buckskin shavings, warm air injected into the cavity of the tooth with a blow-pipe,—having a chamber, under which a spirit lamp may be held,—napkins with watch-spring folded within to secure close pressure upon the parts adjacent, etc., were all suggested, with the degree of success attending the different speakers with the different methods employed.

"4th Question.—Has block work any advantages over single teeth, and if so what are they?

"Dr. Griffith said he had no experience in block work.

"Dr. Goddard used generally single teeth.

"The rest of the members generally used single teeth."

"5th Question.—What are the best methods of, and the best instruments for, separating teeth preparatory to filling? Here the various methods were suggested, such as filing, cutting away with chisels, wedges of wood, cotton, rubber, etc., each advocating, with more or less force, his peculiar method.

To the question whether any "knew of cases in which teeth had to be extracted in consequence of inflammation resulting from wedging." The answer was—"No one knew of any such cases."

One gentleman "had always found it best to produce the requisite space by wedging as quickly as possible—say in one day." Others "thought the quicker the process was done the more certain the inflammation."

"The question—How can color of natural teeth that require filling be most effectually preserved? was taken up and discussed.

"Dr. Bonsall stated that where the nerve had not been exposed, there was no danger of a change of color. He had sometimes used some substance of a light color, as a thin piece of horn or oiled silk, in order to prevent the gold from showing through, where there was little except the enamel left, but the result had not been satisfactory. The only reliable method that he had found of filling such teeth was to clean the cavity out carefully, and fill even to the end of the fang with gold.

"Dr. Griffith had never tried to hide the gold. He thought it better to show the gold in a healthy tooth than by trying to hide it, to introduce some destructible substance and thus render the tooth unhealthy.

"Dr. Goddard had never tried to hide the gold. He doubted whether it could be done.

"Dr. Taft spoke of the various methods that had been used for this purpose, as the introduction of horn—of paper—and of plaster of Paris; but he had never experimented with any of them. Properly inserted fillings had sometimes become black after a certain length of time. He was at a loss to understand the cause."

7th Question.—"Is gutta percha reliable as a base for artificial teeth?" We have already given an abstract from the discussion on this subject in our April number.

8th Question.—"Can artificial teeth, when molded on a porcelain base, ever be worn with advantage?"

Dr. Taylor thought, from his knowledge of porcelain, that they could.

Dr. Horton said, "that porcelain could be used as a base to great advantage in some cases, there was no doubt, but he did doubt whether it would ever come into general use."

9th Question.—"What are the various pathological conditions of inflamed dentine, and what circumstances modify its treatment?" We gave some extracts from the discussion on this subject in our last number, and now add to them.

"Dr. Horton, in filling teeth, had found, that bone of a hard, opaque appearance, or of a reddish one, could always be cut out with impunity. A lighter shade indicated very little inflammation, but when very white it was always very sensitive. He related a case of sensitiveness in a tooth after the nerve was destroyed. After destroying the nerve, he took it out in the evening, without pain to the patient, but it was too late to fill the tooth that day. The next day the patient came in and sat down to have it filled, not dreaming of any pain, but the moment the instrument was inserted to cleanse it, he started as if it had touched the nerve. On examination, a portion of the wall of the cavity looked very red, and appeared to be bleeding. But it was not—it was only the inflammation; for he could not get the least stain of blood upon his cotton. He would ask Dr. Taft how that sensitiveness, after the nerve had been removed, was to be accounted for?

"Dr. Taft.—It had not been entirely removed—a part of it must have remained.

"Dr. Horton was sure the nerve had *all* been removed.

"Dr. Taylor related an instance of extreme sensitiveness in a patient, where the nerve had been entirely destroyed.

"The patient believed that the introduction of the instrument hurt

him when it was not possible. He took pains to show him the extent of the cavity, and how far the instrument had been previously introduced, and after that he experienced no pain. It was all the effect of imagination—the action of the sympathetic nerve on the brain—for he felt assured that when the nerve was destroyed, all sensibility must cease. It could not be otherwise.

“Dr. Horton rose to state, with great particularity, the circumstances of his case. He was certain the nerve had all been removed, and equally sure that his patient felt actual pain when he introduced his instrument. His patient was not, by any means, a timid, nervous or imaginative man.

“Dr. Watt thought the pain came from the nerve that originally supplied that tooth. Pain was really felt there, and imagination placed it not where the nerve then stopped, but where it had originally terminated. He related an instance, in which he had removed the nerve from a right, central incisor. He cut the top of the tooth off, had a good opportunity to remove it all, and was quite sure he had done so. On the second call of the patient, the introduction of the instrument produced intense pain. She was a timid, nervous lady, and she accounted for it by saying, ‘Well, I was always very nervous, and I expect the nerve has grown out again.’”

When a nerve was cut off, inflammation took place at the point of separation and caused pain, which was felt, not where it originated, but where the nerve had recently terminated. The patient's imagination had not yet accommodated itself to the new condition of the nerve.

“Dr. Ulrey would ask if it was not possible to cut off the nerve and leave live ramifications of it through the dentine? Teeth were well known to be highly vascular bodies, full of life. That blood circulated through them, we all knew, for it was sometimes forced in, in such quantities as to cause discoloration. Indeed, they were so full of vitality, that the great and almost the only effectual method of destroying it was by *poisoning* the life out.

“Dr. Griffith had invariably found the tooth sensitive immediately after the nerve had been destroyed. All inflammation could not be immediately destroyed by killing the nerve. At the apex of the fang sensibility would remain, because the great arterial trunk was there. As acids acted readily on the dentine, a soreness would remain as the consequence of their use. A good remedy for this he had found in the bi-carbonate of soda, and had advised his



patients to use it in such cases, to destroy the *effect* of the acids.

"Dr. Jos. Taylor would ask: If ramifications of the nerve did remain in the dentine, how could they communicate pain when totally disconnected at the point of the tooth? You could not communicate pain from a dead body to a living body without a connection.

"Dr. Griffith would answer this by asking another question: Was not the tooth supplied from other quarters? The life of a tooth might not be entirely destroyed even when the nerve was destroyed.

• "Dr. Jos. Taylor had never, in thirty years' practice, found any tenderness in the actual dentine of the crown after the nerve had been destroyed. The most he had ever found was sometimes a little sensibility at the root.

"Dr. James Taylor said: It has been demonstrated that the pulp was not always dead when the nerve was cut off at the point. He related an instance, in which he had extracted a tooth where there had been a separation at the point, and on splitting it open, he found that it contained blood. The circulation seemed to have been kept up through the periosteum. It was important to know whether this was a vital circulation. He hoped the members of the profession would take the pains to split open and examine such teeth whenever they extracted them.

"Dr. Taft thought, as attention had been directed to this subject, the members would probably all know more of it next year. He hoped, therefore, that the question would not be disposed of at this time. This hope was also expressed by other members, and the discussion of the question suspended here with an understanding that it should be recommended for discussion next year.

"Question 10. What is the *modus operandi* of arsenic, chloride of zinc, nitrate of silver, creosote, tannin, etc., when applied to inflamed dentine?

"Dr. Bonsall thought that tannin, being an astringent, and having a different character from all the other agents named, ought not to be classed with them.

"Dr. Ulrey thought it enough to say of most of them, that they were poisons, and the manner of their action was simply to poison the life out of the bone. There was always danger that arsenic would destroy the tooth. If left in a little too long, it was sure to do so.

"Dr. Watt said, that nearly all these agents, or the majority of them, at least, were of the class known as escharotic remedies. Their tendency was to produce the death of the part—which tendency was counteracted by the vital action. We all knew that nothing but the vital force of the stomach protected it from the gastric fluid. The loss of vitality in one part, however, always produced a change of action in the surrounding parts.

"Escharotics were divided into two classes—those which were absorbed and passed into the system, and others which were not. Arsenical and mercurial preparations were liable to absorption, while chloride of zinc was not. He never applied arsenic to inflamed dentine, for, after using it, such was the appearance of the tooth, that he never could have any means of knowing whether he had excavated all the affected parts or not.

"[The first part of Dr. Watt's remarks embraced a careful chemical analysis and description of all the agents mentioned, but abounded so much in scientific and professional terms that the reporter was not able to follow him with any accuracy.]

"Dr. Richardson spoke of the difficulty of knowing the extent of the effect of the arsenical preparation, and related an instance in which he had probably not excavated sufficiently.

"Dr. Watt thought no definite line of absorption could be found.

"Dr. Taft thought it was impossible to tell anything about the absorption of arsenic. It could reach the periosteum in two ways—either by the walls of the canal or by being taken up by the pulp. The rapidity with which it was taken up would depend upon the action of the fluids. In young persons, where the tooth was very vascular, it was taken up with great rapidity, and the tooth frequently destroyed. He seldom used arsenic for this or any other purpose except to poison rats. Chloride of zinc or nitrate of silver left the adjacent parts healthier than before, but arsenic destroyed vitality as far as it went.

"Dr. Taylor could not agree with the gentlemen in all of the positions taken. He, however, never used arsenic in inflamed dentine. He did not think inflamed dentine ever ought to be treated with any such preparation.

"He had wished very much that some substitute could be found for creosote, which he was using more and more every day. He valued it very much for its antiseptic properties.

"Dr. Griffith had used arsenic extensively, and from the experi-

erfice he had had with it he intended to continue to do so. He claimed to have no chemical knowledge of it, and had therefore no prejudice against it. All his knowledge of it was derived from experience. It was true, it was a poison, but there were antidotes for all poisons. As beneficial as he had found it in his practice, he well knew that it might easily be used in such a way as to destroy the tooth. He had used it for the last eighteen years, and in more than a thousand teeth—had always employed it with charcoal and creosote, and always with success.

"A number of the members having expressed a desire to hear subjects 9 and 10 more fully discussed, they were, on motion, referred to the Executive Committee, with a recommendation to place them on the order of business for the next annual meeting.

"By request, Dr. Goddard then gave an account of an interesting and singular case of excrescence of the gum, for which he operated, in the hospital, at Louisville; but as the Doctor, to gratify the wishes of a number of the members, engaged to write a full account of it for the *Dental Register*, it is not necessary to give the facts, in regard to this very curious case, here.—Dental News Letter, July, 1855.

### THE FOURTH INTERNATIONAL DENTAL CONGRESS

AS VIEWED BY A BRITON.

Under the above title Mr. H. James Morris contributes an account of his impressions of American dentists at work to the November number of the *British Dental Journal*. He says that he is told that in the United States Navy gold fillings are part of the uniform, and adds that he can well believe it. It is typical of the American temperament that though the dentists whom he met on the "cars" between New York and St. Louis were going to a dental meeting at the latter city, they had an informal meeting on board the train. It is astonishing to read that ethyl chloride as a general anæsthetic appeared to be new to our transatlantic confreres; Dr. Aguilar, of Madrid, however, was showing "somnoforme," so probably by this time the new group of anæsthetic agents are establishing themselves firmly in the U.S.A. Mr. Morris is evidently a rapid and an accurate observer; he sums up the fundamental difference between English and American practice in a few brief but convincing sentences. "The ultimate difference between the prac-

tice in the two countries is not in the men, but in the public they work for." This remark shows that the visitor from our old country was not carried away by the magnetic influence of the American temperament, and hypnotized into indiscriminate praise of everything he saw, but was able to retain his shrewd common sense and his faculty for impartial deduction. He infers from the gold fillings and crowns in the mouths of artisans, shop girls, servants and railway men that the American working-class is more alive than ours to the possibilities of conservative dentistry; he infers also a greater patience under long operations, and more willingness and tractability than we are accustomed to. In proportion to the cost of living, fees, he was led to think, are somewhat less there than here; they are generally estimated on a time basis. Only one great nation, we read, with the exception of Russia, was unrepresented at the Congress. That nation was England. Poor old England! Unfortunately, we understand the President of the British Dental Association was prevented from attending the Congress by a personal accident, otherwise there would have been at least one official representative to show that our interest in the world's doings is still alive. Naturally, there was much private comment about the absence of England's representative. We agree with Mr. Morris that it is a pity that official supineness should prevent the proper representation of our country at such important meetings.

We read with great pleasure that they have "got" porcelain "badly" in America, and it is easy to believe that some of them are running it to death. Americans get up an amount of enthusiasm about such matters that one can readily understand how it is that their public appreciate conservative dentistry. A little American enthusiasm might advantageously be laid down in this country; matured and re-corked it might even become fashionable, and it is almost conceivable that our historic race would be benefited by it. Many porcelain workers had pyrometers attached to their electric ovens, but, with this exception, Mr. Morris does not recollect seeing any great advance in dealing with the chief problems of porcelain work. Removable bridges are noted as appearing to be growing in favor; and in connection with bridge work the writer observes that, speaking generally, the Americans eat softer food than we do, masticating less and eating faster, circumstances which have more than an indirect bearing on the success or otherwise of bridge

work. Demonstrations in a multitude of methods came in for their share of attention, but it is remarked that there were very few on prosthetic work or amalgams or cements. A syringe for anæsthetizing the pulp by forcing the contents through the dentinal tribuli sounds like a startling innovation, and, if practicable, would constitute a revolution in operative methods; but the author confessed to a scepticism which was shared by other dentists, though the manufacturers were quite sure it could be done. In conclusion, Mr. Morris refers to the meeting as most inspiring and helpful, and this we have no doubt it was. The Americans have, as a national characteristic, an inventive talent, and an energy in the pursuit of their ideals which calls for the admiration of the whole world. Though we may not recognize the position of leadership in the dental universe which they are apt to ascribe to themselves, yet there is no question that we in England have in the past, and do still, highly appreciate their ingenuity, their enthusiasm, and their boundless energy; and those among us who are ever on the look-out for improvements in implements, labor-saving devices and the thousand and one little things that go to make dental operations a delight rather than a toil, accept with gratitude numberless innovations bearing the trade marks of various firms in the United States. Perhaps Mr. Morris' highly interesting paper may be the means of augmenting the number of English dentists at the next Dental Congress held in the land of high aspirations, where houses rear their heads among the clouds, and whose emblem—the eagle—has a bowing acquaintance with the sun.—*The Dental Surgeon*.

### IMMUNITY FROM CONSUMPTION.

BY CYRUS L. TOPLIFF.

Pulmonary tuberculosis, or consumption, is the most common and dangerous of all diseases; in fact, the public statistics show that more than one-tenth of all deaths in the United States result from this disease, while between the ages of fifteen and forty-five the proportion is increased to thirty-three per cent, which means that one death in every three between these ages results from tuberculosis. Dr. Alfred Hillier, secretary of the British National Association for the Prevention of Consumption, has for many years made a close study of this malady. In his new book, he states that "deaths from tuberculosis in England and Wales are estimated to amount yearly to 60,000, and in the rest of Europe to a million. In England

one-half the deaths between the ages of twenty-five and thirty-five are caused by this disease."

It is a well-known fact that tuberculosis is due to the tubercle bacillus, a vegetable micro-organism which is motionless and helpless, but under the proper conditions can grow and reproduce itself very rapidly. It has been estimated that in some cases, two or three thousand millions of tubercle bacilli are discharged in the expectoration from a single case of consumption in the course of twenty-four hours. If such sputum lodges in places where it afterward dries and becomes pulverized, as on the street, floors, carpets, clothing, or handkerchiefs, these germs are liable to float in the air as an invisible dust, making it an easy matter for one to inhale them into his lungs. Everyone does inhale them more or less often, but if the lungs are fully developed and in a healthy condition, the germs will not prove harmful.

The tubercle bacillus requires an unhealthy tissue and a certain amount of moisture to favor its development, and the lungs are most frequently infected because they are seldom fully developed in the human being, and especially in women. This is due to the fact that the apex or top of the lung is seldom filled with air, and consequently the tissue in that part of the lung becomes weak and unhealthy, for want of use, and makes the best kind of a place for the rapid development of this dangerous germ.

For many years the medical profession of the entire world have devoted their thoughts and energies to the discovery of some cure for tuberculosis, but all efforts to cure the disease by drugs have utterly failed, and they now admit that the only thing that can be done is to give the patient plenty of fresh air, and adopt such strict sanitary measures as will prevent the spread of the disease to others. As pulmonary tuberculosis—consumption—is the most common form of this disease, and is due to imperfect development or unhealthy condition of the lungs, *why not make all children, and others, immune from the disease, by teaching them how to breathe properly, thus developing every part of their lungs, and making it impossible for the tubercle bacillus to live there?*

When the disease is once established, it is difficult to cure it, because the patient's vital force is so low that he does not have sufficient power of resistance to repel the disease. Small or unused lung capacity means low vital energy; but when the capacity is increased, the vital force is also increased, as well as the power of

endurance, giving the person greater power to resist diseases of any kind.

The common nervous breakdown among children, as a result of overwork or too much mental strain, would seldom occur if the lungs were used as nature intended them. The matter of developing the lungs is very simple, and can be accomplished without any extra expense to the city or community. If all physicians would instruct their patients how to breathe properly, and if the boards of health and boards of education would compel all the schools to have their scholars rise in their seats and practice breathing exercises for a few minutes every morning, at the opening of the school, and at the same time tell them to practice these exercises on rising in the morning and at other times during the day, the result would be that their lungs would soon be in a healthy condition, and they would probably breathe properly during the balance of their lives.

If this rule were strictly carried out, the new cases of tuberculosis would soon be greatly reduced and, in a comparatively short time, tuberculosis would be substantially eradicated from our community. In the incipient stage of the disease, these breathing exercises will assist greatly in effecting a cure.

No elaborate breathing exercises or gymnastic movements are necessary to properly develop the lungs; in fact, one simple breathing exercise would be sufficient—the double-breath. This exercise is taken as follows: Stand erect, with the hands at the side, in line with the legs; take one long, full breath, hold it for a second, then take another quick, short breath on top of the other breath, and hold all for a second longer, then gradually exhale the air through the nose. All inhalations and exhalations should be through the nose, and not by the mouth.

There are a number of breathing exercises which will develop the lungs, but I mention this one as the best of all. Persons who are suffering from this disease, in an advanced stage, should practice the long, deep single breath for some time—several days or weeks—before attempting the double-breath, as the latter is only intended to develop the lungs of those who are not seriously ill. If you will try this double-breath exercise, even once, the extreme top of your lungs will no doubt experience, for the first time, the agreeable sensation of a "breath of fresh air." It is impossible for any one to contract consumption who will completely fill the air cells in his lungs with fresh air several times a day.—*Scientific American.*



# EDITORIAL

At the recent meeting of the Chicago Dental Society Dr. Hart J. Goslee read a very interesting paper on "The Present Status of Crown and Bridge Work." The paper, as is usual with the author's efforts, was very interesting and instructive and was well discussed. The essayist discussed with a great deal of energy the esthetic side of porcelain crowns, and his remarks were endorsed by Drs. Taggart, Reeves, Phillips and others. It was a very valuable evening for the Chicago Dental Society.

The regular meeting of the Odontographic Society followed with a symposium on "The Removal of Pulp by Pressure Anaesthesia and the Subsequent Filling of Root Canals." The subject was discussed by Drs. Buckley, Noyes, Parker, Puryn and Funk. The last named speaker was the first to use cocaine with pressure to desensitize the pulps of teeth. The discussion was interesting and showed to what extent this practice was being followed with apparent good results.

It is interesting to note that some professional men adopt almost universally a certain method of practice and follow it out almost to the exclusion of everything else. While perhaps it is true that in the practice of that part of the healing art known as dentistry, it is possible to more nearly adopt a certain method of practice or line of treatment than any other branch of medicine, yet with the treatment of teeth it must be borne in mind that the teeth of a highly organized human individual is a part of the most sensitive structure of the body. Teeth are so varying in their general makeup, their diseased condition is so varying in its general characteristics and the phenomena of the disease of the pulp is such as to require the most profound knowledge of physiology, pathology and therapeutics; and it seems strange that one kind of treatment of the pulp should be adopted to the exclusion of all other scientific means of handling diseased processes. Some will claim by their method of treatment that they never have any failures or scarcely feel justified in adopting any treatment except the one they have found so universally satisfactory. Of course, it is one of the most natural things for anyone who is practicing any branch of the healing art to follow



the line that he feels will give the best results in the greatest number of cases. But the question naturally arises: Can the pulp of a tooth in every case be anaesthetized, removed and the root canal filled without producing detrimental effects upon the tissues adjacent to such roots or produce some deleterious influence on the tissues in that vicinity?

The Alumnus of the Northwestern University Dental School and the Chicago College of Dental Surgery held their annual clinics Jan. 17th and 18th, 1905. The committees having these clinics in charge were not prompt in making up their programs and getting them into the hands of the profession. Therefore the clinics were not as well represented as usual in attendance, but the operations performed were interesting and instructive. As usual there were a number of men from neighboring towns, adding much to the social feature of the meetings.

There is considerable discussion at the present time as to whether there are not too many clinics and meetings during the year.

Many clinicians seem to think all that is necessary is to complete the clinic and show up the finished operation; especially is this true if a table clinic be given. It might not be possible, however, to perform some clinics in the clinic room, but a very large majority of clinics that are given are only valuable when each detail of the operation is observed, and explained as the operator progresses in his work. The dental profession seems to be so practical that they are most always ready to doubt whether such operations can be performed in the mouth. But taking it all in all we are all proud of what has been accomplished in dentistry, and we feel quite sure that fads and fancies will have their days and all will be benefited more or less by fadisms.

G. W. C.

#### **EXAMINATIONS FOR LICENSES IN DIFFERENT STATES.**

In all the states and territories of the Union it has been unquestionably the better element in dentistry—those who uphold honest, ethical methods and the highest standards—who have instigated and promoted the passage of laws regulating the practice of dentistry. The spirit of the movement that brought about legislation in one state after another until all have adopted laws more or less to the purpose, was police regulation against imposters who would not hesitate to imperil the health and lives of the populace for gain, and not against qualified men. It is rather a queer thing, however, that in the formulation of these laws features have crept in, designedly or otherwise,

which act as a boomerang, so to speak, towards the very men who have lent their influence to bring them about in all states, and especially when in this free country—free in almost everything else—they attempt to go into another state than their own to practice their profession. Police regulation is proper enough, but it should not put up a barb-wire fence to keep-out men who can present credentials of eminent qualifications together with the advantages of practical experience. In international, national and interstate and other societies and conventions, representative of the best element in dentistry throughout the country, practitioners from all quarters meet and recognize each other as the legitimate and qualified men of the profession at large. There may be wholesome rivalry and differences of opinion on the subjects up for discussion, and here and there a man may be cheerfully acknowledged as having risen superior to his fellows along some line, or even in a general way, but in all rights and privileges and in the general recognition every man is the peer of every other. In such a gathering, too, there are usually men from various states who have been specially invited and honored on account of well-known ability and high professional standing.

But let one of these recognized men of ability in these censored societies and conventions, from the state of New York say, attempt to locate in Colorado, or vice versa; or go from Illinois to Arizona or N. Dakota and other states to practice, and immediately he may be challenged and discredited. His diploma may be A1, and other credentials of the highest order. The members of the dental board to which he applies may know personally of his satisfactory professional standing, yet he must submit often to the most exacting and critical examination that can be given, and often with the set purpose of forcing failure upon him if possible,—an examination that not one of that same dental board of examiners could pass without many days of coaching. Is it not a little queer?

Laws are laws and must be conformed to, of course, and this is no appeal for officers delegated to carry them out to be derelict in their duties. But, it being a fact that more or less discretionary power is given dental boards in most states, it is neither fair nor just to give a practitioner of certified standing, and practical experience, which adds to his qualification and usefulness materially, such an examination as would be given to one without such verification, nor such a list of theoretical questions as would be likely to puzzle a recent student along those lines. The police power given

a dental board is often superior to that of a judge on the bench. The board, however, is the servant of the people, and the people do not want to erect a wall against dentists of worth and ability any more than they want to bar other interstate rights and privileges of United States citizens, and a dental board, disposed to do so, can exercise their discretionary power as well in the direction of fairness and justice as in a dog-in-the-manger sort of way, to the end that we may reach a stage of reciprocity between the states as regards dental practice, good for all concerned, that will respect earned ability and make us feel that there is still something in being free born American citizens united under one flag.

R. B. T.

### ITEM.

A dentist of this city who is recognized here and elsewhere as considerably above the average in professional ability generally, and an expert along some lines, recently went to another state to take the state board examination with the idea of engaging in practice there. He is a graduate of some years' standing from a Baltimore college, and like most men some years in practice, much of the theoretical and text-book knowledge, and particularly that which concerns general anatomy and the multitude of minute parts and their functions that are rarely or never dealt with in the practice of dentistry, he has allowed to fade from his memory. The result of the examination, shown below, indicates that on all practical points the markings given are evidence of a thoroughly well qualified and practical man. Aside from this the members of the board had personal knowledge of his ability in practice which makes him widely and favorably known, for he has been several times invited to give clinics in that as well as other states. Furthermore, he was well vouched for by a number of prominent men in the profession. We publish this as a matter of information to our readers who contemplate making a change to another state. How many practitioners of ten years' standing, or even five, can feel assured of better markings under a like examination?

Operative Dentistry, . . . . .	.95	General Surgery, . . . . .	.75
Prosthetic Dentistry, . . . . .	.93	General Histology, . . . . .	.00
Orthodontia, . . . . .	.92	General Physiology, . . . . .	.80
Crown and Bridge, . . . . .	.96	Therapeutics, . . . . .	.67
Dental Hygiene, . . . . .	.71	Dental Metallurgy, . . . . .	.94
Dental Deformities, . . . . .	.80	Dental Materia Medica, . . . . .	.65
General Anatomy, . . . . .	.45	General Chemistry, . . . . .	.69
General Pathology, . . . . .	.65		

Average required, .80; average given, 71 $\frac{3}{4}$ .

## SOCIETY ANNOUNCEMENTS

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### AND REPORTS OF MEETINGS

#### JOINT MEETING—THE SOUTHERN BRANCH OF THE NATIONAL DENTAL ASSOCIATION MEETS WITH THE TENNESSEE STATE DENTAL ASSOCIATION AT MEMPHIS, TENN., FEBRUARY 21st.-24th, 1905.

Below is a partial list of the papers and clinics:

Dr. Jules J. Sarrazin, New Orleans, La., Chairman Report.

Dr. S. D. Brabson, Knoxville, Tenn., "Prophylaxis in Dentistry," discussion opened by Dr. N. N. Vann, Atalla, Ala., followed by Dr. Robin Adair.

Dr. Robin Adair, Atlanta, Ga., a successful introduction of Oral Prophylaxis treatment into practice. Discussion opened by Dr. N. N. Vann, Atalla, Ala., followed by Dr. B. D. Bradson, Knoxville, Tenn.

Dr. R. Boyd Boyle, Chairman, Report.

Dr. August F. Sonntag, Chairman, Report.

Dr. M. F. Fennily, Washington, D. C., Report.

Dr. E. P. Beadles, Danville, Va., "A few points in Inlay work."

Dr. S. D. Ronebo, Marietta, Ga., "Gold and Tin and Amalgam and Gold at cervical margin as an excellent material for saving teeth."

Dr. T. T. Moore, Columbia, S. C., "Insulating Deep seated cavities."

Dr. B. Holly Smith, Baltimore, Md., title not given.

Dr. J. E. Chase, Ocala, Fla., Chairman Report.

Dr. Geo. S. Vann, Gadsdon, Ala., Chairman Report.

Dr. F. M. Milam, Little Rock, Ark., "Orthodontia."

Dr. W. Grant, Louisville, Ky., "Orthodontia, surgical and mechanical."

Dr. J. Lewis Walker, Norfolk, Va., "Orthodontia, successes and failures."

Dr. H. H. Johnson, Macon, Ga., Chairman, Report.

Dr. R. K. Luckie, Holly Springs, Miss., Chairman, Report.

Dr. Geo. W. Dick, Sumter, S. C., Chairman, Report.

Dr. Burton Lee Thorpe, St. Louis, Mo., "The Masters of early Dentistry, with lantern-slide pictures."

Dr. Arthur Hynes Fleming, Louisburg, N. C., "The problem of education."

Dr. W. G. Mason, Tempa, Fla., "Dental Education."

Dr. A. W. Meyer, Chattanooga, Tenn., "Diseases of the Antrum, practical case."

Dr. J. C. Bogue, Harriman, Tenn., "The Education of present and prospective dental patients."

#### CLINICS.

Dr. Thos. P. Hinman, Chairman, Atlanta, Ga., Dr. J. L. Newborn, Memphis, Tenn.

Dr. Truman W. Brophy, Chicago, Ill., "Surgical Operation."

Dr. F. F. Roach,\* "Showing new attachment for partial plate and removable bridge."

Dr. D. O. N. LeCron, St. Louis, Mo., "Method of ascertaining true fusing of Porcelain."

Dr. Burton Lee Thorpe, St. Louis, Mo., title not given.

Dr. L. M. Cowardin, Richmond, Va., "Appliance for correction of cross teeth ("Orthodontia.")

Dr. F. L. Wood, Roanoke, Va., title not given.

Dr. T. T. Moore, Columbia, S. C., "Manner of Insulating deep seated cavities."

Dr. A. M. Jackson, Macon, Ga., title not given.

Dr. Joseph Broughton, Atlanta, Ga., "Articulated piece of bridge work."

Dr. Geo. A. Loque, New Orleans, La., "A full porcelain crown and bridge eliminating all baking."

Dr. W. O. Tolbot, New Orleans, La., "Taking of plaster impressions and making of casts for Orthodontia work."

Dr. W. M. Slack, Memphis, Tenn., "Demonstrating use of Vernon's gold."

Dr. J. A. Gardner, Memphis, Tenn., "Cavity preparation extension for prevention."

Dr. J. W. Peete, Memphis, Tenn., "Orthodontia."

Dr. C. F. Hines, Memphis, Tenn., "Porcelain Inlay."

Dr. J. W. Hunt, Memphis, Tenn., "Gold Inlay in frail incisors."

Dr. C. H. Taylor, Memphis, Tenn., "Porcelain without Platinum base."

Dr. W. W. Brooks, Memphis, Tenn., "Instrumentation phagadenic pericementitis."

Dr. C. A. Tavel, Memphis, Tenn., "Combination filling finished with Vernon's gold."

Dr. Eugene A. Johnson, "Exhibition of somnoform for extracting of teeth and minor surgical operations."

Dr. W. D. Gaither, "Method of attaching lost incisor to incisor or cuspid by means of doweled gold inlay."

Dr. H. M. Prettyman, Covington, Ky., "Gold bridge demonstrating original method of securing perfect occlusion."

Dr. J. L. Newborn, Memphis, Tenn., "Members reinforcing mallet."

Dr. W. C. Gillespie, Nashville, Tenn., "Abby's soft foil filling."

Dr. Walter White, "Dontin injection with cocaine and mounting Davis crown."

Dr. F. F. Buck, Jacksonville, Fla., "Table clinic showing new flask and rubber warmer and method of applying tin foil rubber."

Dr. Richards, Knoxville, Tenn., "Practical demonstration of inlay—using a new apparatus."

Dr. J. C. Bogue, Harriman, Tenn., "Capon porcelain front crown."

From the interest manifested, this promises to be the largest meeting in the history of the two Associations. The rail roads have given a rate of one and one-third fare on the certificate plan. The meeting will be held at the Hotel Gayoso, rooms \$1.50 and \$2.00 per day, European plan. Accommodations can be had at other hotels on the American plan \$2.00 per day.

The exhibits of the various supply houses will be exceptionally attractive, embracing everything of interest to dental profession. —*Chas. A. Bland, Chairman, Programme Committee, Charlotte, N. C.*

#### ST. LOUIS DENTAL SOCIETY.

At the February meeting of the St. Louis Dental Society held Feb. 7 at the Lindell hotel, it was decided that the society should build a home of its own. A paper on the subject was read by Dr. James P. Harper, and resolutions introduced by Dr. M. C. Marshall, providing that all receipts of the organization over and above expenses should be set aside for a building fund, were adopted.

The members of the society are not to be assessed for the fund, but the dues, initiation fees and donations not required for running expenses will be turned over to it. Ten dollars for the new building was subscribed by each of the fourteen members present last night, and two supply houses made liberal offers. The society expects to put up a building costing about \$10,000 or \$15,000.

Next year the society will be fifty years old, and a committee was appointed to arrange to appropriately celebrate the anniversary. This is one of the oldest societies in the country. It is the first one in the country to start a movement for providing itself with permanent quarters. Its membership is 100.

#### READING DENTAL SOCIETY.

The seventh annual meeting of the Reading Dental Society was held Jan. 5, 1905, at Reading, Pa., and the following officers were elected for the ensuing year: President, Dr. Chas E. Grim; vice-president, Dr. C. R. Scholl; secretary, Dr. Geo. S. Schlegel; treasurer, Dr. J. T. Bair; executive committee, Dr. W. H. Scholl, Dr. Otto J. Specker, Dr. E. W. Bohn.

GEO S. SCHLEGEL, Secretary.

#### IOWA STATE DENTAL SOCIETY.

The 43d annual meeting of the Iowa State Dental Society will be held at Des Moines, May 2nd, 3rd and 4th, 1905. A Program of clinics and papers of more than ordinary interest is in preparation. A cordial invitation is given to the Dental profession to attend.

C. W. BRUNER, Secretary.

#### THE MINNESOTA STATE DENTAL ASSOCIATION.

The 22nd annual meeting of the Minnesota State Dental Association will be held in Minneapolis on June 1, 2, and 3, 1905.

GEO. S. TODD, Sec'y.

**SOUTHEASTERN IOWA DENTAL ASSOCIATION.**

The Southeastern Iowa Dental Association met at Burlington Jan. 10 and elected the following officers: President, A. W. Dana, Burlington; vice president, J. B. Monfort, Fairfield; secretary, George W. Slingluff, Burlington; treasurer, J. T. Martin, Muscatine. The association will meet next year at Keokuk.

**SOUTHWESTERN MICHIGAN DENTAL SOCIETY.**

The Southwestern Michigan Dental Society meets in Kalamazoo April 11-12, 1905, and promises to be a success, as we have secured some very interesting material. All reputable dentists are invited.

C. W. JOHNSON, Sec'y.

**NOTIONAL DENTAL ASSOCIATION, SOUTHERN BRANCH.**

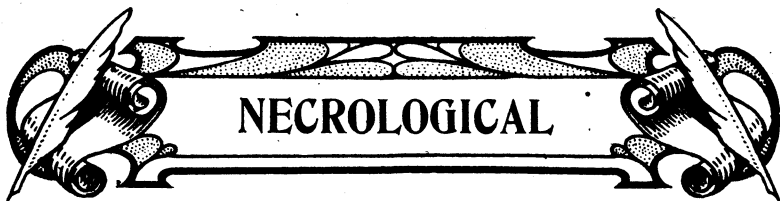
The eighth annual meeting of the Southern Branch of the National Dental Association will be held February 21-23, 1905, at Memphis, Tenn.

J. A. GORMAN, Cor. Sec.,

Asheville, N. C.







## NECROLOGICAL

### DR. BEN A. McGEE

Dr. Ben A. McGee, aged 53 years, dropped dead from an attack of heart trouble while greeting friends Jan 16 at his residence in Denver, Colo.

He was born at Bloomington, Ind., July 26, 1851, and was a graduate of the Ohio College of Dental Surgery at Cincinnati. He was married at Louisville, Ky., to Miss Alice Norman, September 25, 1872. He moved from Indiana to Colorado about eleven years ago, first locating at Salida and afterward moving to Denver.

Dr. McGee at his death was president of the State Dental association of Colorado, and for several years was a member of the state board of dental examiners, serving longer than any other man.

His wife, son and daughter survive him, his son, Dr. Rea P. McGee, being associated with his father in this city.

Dr. McGee's oldest son, Norman, who had acquired eminence in civil engineering, died at the age of 31 years, on September 28 last, at Colorado Springs.

Dr. B. A. McGee was a member of the National Association of Dental Examiners and of the American Dental association.

### MR. JOSEPH K. EVANS

Mr. Joseph K. Evans passed away at the residence of his son Dr. J. K. Evans, Chicago, in February. The deceased was 69 years of age at the time of his death and had been in the employ of the S. S. White Dental Co. for 45 years, having had charge of the tooth counter since the location of the Chicago branch. Mr. Evans was born in New York City, but his early life was spent in Louisville, Ky. He entered the employ of S. S. White Co. at Philadelphia at the age of twenty-one, removing to Chicago when that branch was established and was in their employ until January, 1902, when he was retired on half pay and was fully retired in March, 1904. During the year of 1901 he suffered a stroke of paralysis from which he never recovered. He is survived by three sons and one daughter, the two older sons, Jos. K. and William, being in the practice of dentistry in Chicago.

**DR. J. B. WILCOX.**

Dr. J. B. Wilcox, a prominent dentist at Manistee, Mich., died from injuries received by the kick of a horse. Deceased was 68 years of age at the time of his death. He located in Manistee in 1867.

Dr. Wilcox was very fond of country life. He owned a farm near Arcapia, and spent much time in his garden at his city residence. Gardening, the care of bees, horses, and the like, appealed to him strongly. His mind was such that he found much to enjoy in the simpler facts of Nature. He was kindly and sympathetic toward all. There was much in his character, as revealed to those who knew him familiarly, that bespoke the finer qualities of manhood.

**DR. EUGENE F. JAKUES**

Dr. Eugene F. Jaques, for a number of years a practicing dentist in Painsville, O., died Jan. 18. Dr. Jaques had been confined to his room some time, but the end was unexpected. In the evening he had fallen into a deep sleep, and his son, Franz Jaques, had left him for a short time. When he returned to his father's room, he found him still in death.

Dr. Jaques moved from Burton, his native town, about fifteen years ago, and during his residence in Painsville had been in continual practice in his profession.

**DR. E. L. BROOKS**

Dr. E. L. Brooks, one of the well-known dentists of Iowa, for some time president of the State Dental Association, and a graduate of the dental department of the State University, of Iowa City, died at his home in Vinton, Iowa, Jan. 17, after a brief illness of three days. Dr. Brooks was one of the practical dentists of the state and had a large practice there for many years, his acquaintance with the profession was state wide.

**DR. C. M. COBB**

Dr. C. M. Cobb, formerly of St. Joseph, Mo., died at the home of his parents at Clear Lake, Iowa, January 4. He had been affected with consumption for a number of years and had traveled extensively through the West and South in an endeavor to recover his health. Doctor Cobb was well known in St. Joseph, having conducted a dental office there until about two years ago.

**DR. JOHN A. SMALLEY**

Dr. John A. Smalley died Jan. 8 of Bright's disease, at his home in Newark, N. J., where he had been a practicing physician and dentist for twelve years. Dr. Smalley was born in New Haven, Pa., 49 years ago. He lived in Newark, Ohio, for a few years when a young man, and was a prominent member of Warren Chapter, No. 6, Royal Arch Masons, Newark, Ohio.

**DR. S. B. CORN**

Dr. S. B. Corn, a dentist, fell dead from heart failure at his home in Stillwater, Ok., Feb. 1. He had lived there a number of years. The doctor formerly took an active interest in Western Kansas politics, having been at one time mayor of Kiowa. He leaves a widow and three children.

**DR. F. H. GATES**

Dr. F. H. Gates, a dentist who located recently in Norton, Kan., was found dead in his chair in his office Jan. 20. He had been in his office all afternoon with the door locked and his friends became suspicious that something was wrong and forced an entrance, and found him in his operating chair dead.

**DR. WILLIAM W. WILSON**

Dr. William W. Wilson, a retired dentist who for many years practiced in Baltimore, died on Feb. 2 at his home at Glenarm, where he lived at the old family homestead with his brother. Dr. Wilson was 78 years of age. He retired from practice about 12 years ago.

**DR. ROBERT C. COY**

Dr. Robert C. Coy of Chicago was killed by the Yaquis in Mexico Jan. 20. With a company of friends he had gone into a remote region to examine some silver mines when he met his death. Dr. Coy was 42 years old and leaves a widow, a son and a daughter.

**DR. L. M. GRIFFIS**

Dr. L. M. Griffis, a prominent dentist of Hamilton, O., died at his home in that place Feb. 1. He was 69 years of age and was a native of the county in which he died. Deceased was a graduate of the Ohio Dental College and occupied one office for forty years.

## MISCELLANEOUS

### STERILIZED COTTON ROOT FILLING

Dip pellet of cotton in iodine and allow to burn. It does not fall to pieces and can be introduced without difficulty.—*Dr. Hotz, Cosmos.*

### TREATMENT OF ROOT CANALS

I never enter a doubtful canal, even with an instrument, that I feel sure is sterile, without first dipping it in the Schroll compound for sterilizing the instrument as well as for the tooth's.—*R. Ottolengui, Items.*

### USE FOR WORN MANDRELS

When the screw thread is worn so it will not hold, mount the stone with sealing wax, warmed and pressed home and held until cold. Cotton wound on the screw thread will also cause it to hold temporarily.—*Review.*

### PAIN FOLLOWING TOOTH EXTRACTION

Fill the alveolus with cotton tampon in a solution of equal parts chloral hydrate, glacial phosphoric acid and glycerin, and the pain will disappear. Besides its pain relieving properties this dressing is a powerful antiseptic.—*Rev. de Dent, Appliquee.*

### SPRINGY WIRE FOR REGULATING APPLIANCES

The gilded piano wire, size A, English gauge, is the most satisfactory wire for regulating springs, when not vulcanized in a plate, as it does not corrode, and in many mouths does not even tarnish.—*E. Bradner White, Dental Review.*

### CEMENTING ON BANDS IN REGULATING CASES

In putting on bands the teeth should be smeared with cement as well as the hands; this is imperatively necessary to prevent the devitalization of the teeth on which the appliances are placed. Too much care cannot be taken in this regard.—*Dr. C. F. Allen, International.*

**ADAPTION OF MATRIX TO CAVITY.**

Press the matrix material to general form of cavity; then stretch loosely over it a strip of thin rubber dam and lay on it, over the cavity, a small quantity of ordinary putty, rather stiff. Press into the cavity carrying it to the bottom, and with considerable force carry it into every part. Release the pressure and the elasticity of the rubber will lift the putty from the cavity and leave the matrix in position.—*Dr. W. H. Halloway, Items of Interest.*

**A VULCANIZED PIVOT CROWN**

Make plaster model of shape desired, varnish and oil it. Make two half dies of it by means of molding ring and sand pack. Withdraw model and pour in babbitt metal. The thicker the molten metal the smoother the die. Drive one-half into lead, having oiled paper between die and lead. Now use a piece of thick tin foil or thin plate as you have the oiled paper, with piece of gold between it and die, drive home and turn up edges. File flat these wrinkled edges. Now, make the other half from other die the same way. Wire the two halves together, solder, dress down and polish.—*Dr. J. F. Steele, Eagle Grove, Iowa.*

**TO MAKE A SHELL CROWN**

Choose a tooth with horizontal pins. Take a piece of 26 gauge platinoïd wire, flatten one end and file notches on each side that it may be fitted in between the pins of the tooth, which should be bent over the wire, thus attaching it. Adjust properly to the root, filling the space between end of the latter and the facing, with wax, contouring to suit. Trim off surplus wax, invest in mould and remove wax. Pack with white rubber and vulcanize, trim and polish. By this process a perfect joint is made.—*Dr. J. F. Steele, Eagle Grove, Iowa.*

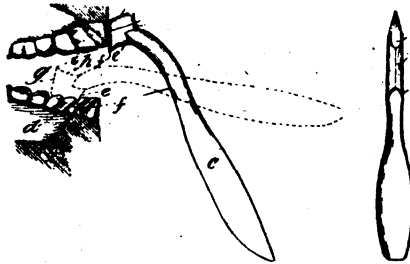
**SEPARATING TEETH**

From experience in my own mouth and the expressions of gratitude from my patients, when they learn why the cotton or gutta-percha is used in place of the metal separator, I am convinced the slow method is the only one to use, except when it is absolutely unavoidable; and if you look ahead at time of examination, it is indeed rare when you are justified in using any other. It is a rare thing for any of us to fill teeth for a patient without a preliminary examination, and if at this time we find that there is only sufficient work for one appointment and this consists of approximal cavities, then is the time to begin your separation.—*Dr. J. P. Root, Extract, Wes. Jour.*

# PATENTS

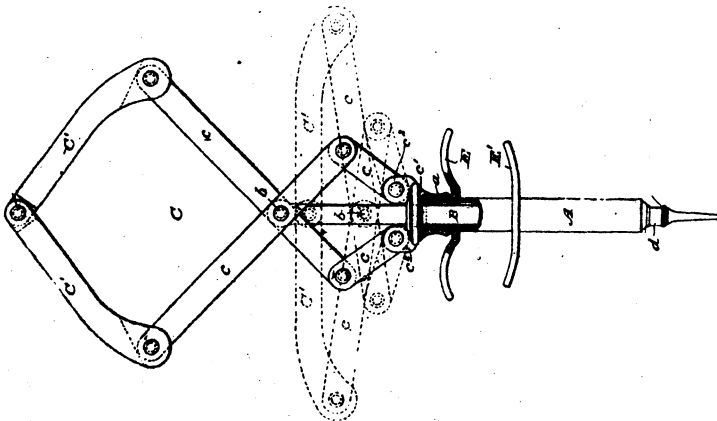
774,253. Tooth-Cleaner. James E. Keefe, Chicago, Ill. Filed Apr. 15, 1903. Serial No. 152,716. (No model.)

Claim.—1. A tooth-cleaner consisting of a flat head having tapered edges, portions of which are arranged at angles to each other, and a handle extending from the head in the plane of the sides thereof.



780,146. Dental Instrument. Amos A. Wilcox and Marcellus Jewett, Cleveland, Ohio. Filed June 13, 1904. Serial No. 212,234.

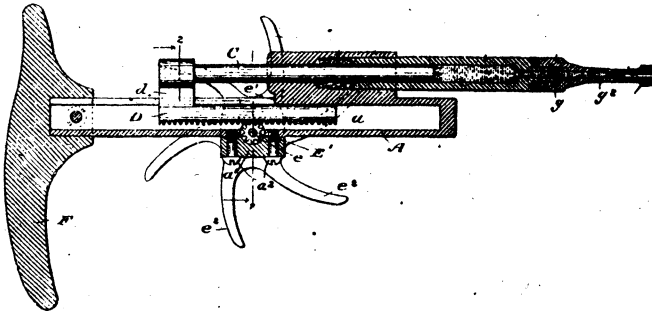
Claim.—1. In a dental instrument, a nipple having a discharge-opening bounded by a circular knife-edge.



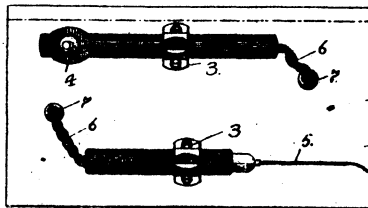
780,147. Dental Instrument. Amos A. Wilcox and Marcellus Jewett, Cleveland, Ohio. Filed Sept. 14, 1904. Serial No. 224,399.

Claim.—1. In a dental instrument, the combination of a two-part reservoir for liquid material; a piston operating therein; a discharge-nipple connected to said reservoir; a rack provided within an extending ear within which said piston is secured; and a trigger-wheel provided with a plurality of discharge-operating finger-pieces and with an extended axis, the latter comprising a pinion adapted to gear with said rack.

2. In a dental instrument, a hollow casing provided with an open extending portion, having an internal screw-thread; a hollow cylindrical portion provided with an external screw-thread at one end adapted to engage with the aforementioned internal screw-thread, thereby providing a reservoir for liquid material; a discharge-nipple connected to said hollow cylindrical portion; a piston operating in said reservoir; a rack adapted to operate within said casing and connected to said piston; a pinion adapted to engage with said rack; and means for operating said pinion.



780,322. Electric-Dental-Instrument Holder. Monroe N. Callender, San Francisco, Cal., assignor to J. W. Roach, San Francisco, Cal. Filed Nov. 3, 1904. Serial No. 231,307.



Claim.—1. In an apparatus of the character described, a board for holding a dental instrument, electric wires leading to the instrument, a drum around which the wires are wound, a spring for winding up said drum, a pawl for holding the drum against the spring-terminals on the drum, respectively connected with the ends of the wires, and connections from the terminals to a source of electricity, substantially as described.

## Personal and General

**Connolly-Keegan**—Dr. Charles L. Connolly and Miss Helen Keegan, both of Santa Rosa, Cal., were married Jan. 16th at that place.

**Vermilion County**—The dentists of Vermilion county organized the Vermilion County Dental Society, Dr. Rideout, of Danville, is president.

**Retired**—Dr. Sidney B. Sill, of Aurora, Ill., one of the oldest dentists in Illinois and a member of the firm of Sill & Son, has retired from practice, the firm being dissolved by mutual consent Jan. 1st. The practice will be continued by the son, Edward J. Sill.

**Bankrupt**—A petition in voluntary bankruptcy was filed in the Federal court by F. W. Warren, a practicing dentist of Galveston. Total liabilities are scheduled at \$1,184. Assets are scheduled as consisting of debts due petitioner, \$384; implements and tools of trade used in practice of his profession, \$500; real estate, \$1,000. The last two items are claimed by petitioner as exempt.

**Island Dentist Married**—The news is brought from Tahiti by the steamer Mariposa that Dr. J. Williams, who is well known to every tourist that ever visited Papeete, is married. Dr. Williams has made his home in the island for many years, where he has practiced his profession of dentistry. Some two years ago he purchased an island to the north of Tahiti, which has a magnificent grove of cocoanut palms. Mrs. Williams was an old friend of the doctor's and knew him at his old home in Canada.

**Saw the Dentist All Right**—The marriage of J. M. Tipton, of East St. Louis, and Miss Nancy Lorene Rodman, of Hatton, was solemnized at the New Fulton hotel Jan. 20. The wedding will be a great surprise to the friends of the couple, as their intentions had been kept a strict secret. The groom was recently a student of the state university. The young woman left home with the understanding she was to visit a dentist, and, meeting her fiance, they went to the city and were married. The groom is a dentist.

**Petition in Bankruptcy Fled Against a Dental Supply House**—A petition was filed in the United States district court by Karnes, New & Krauthoff, attorneys, asking that the Western Dental Supply company, 210 Altman building, Kansas City, be declared bankrupt. The creditors, according to the petition, are: H. D. Justi & Son, \$3,539.81; Electro-Dental Manufacturing company, \$459.74; Webb-Freyschlag company, \$9.23. The petition further alleges that E. W. Allendorph, the president of the company, withdrew from the corporation sums of money aggregating \$5,000.



## STORY OF THE KING'S DENTIST.

Americans who knew him felt little surprise at the news that Dr. Alonzo H. Sylvester, the American who for twenty years was Emperor William's dentist, shot and killed himself in his home opposite the Thiergarten in Berlin on January 10. Although he was a close personal friend of the Kaiser and was in higher favor with him, perhaps, than any other American in Berlin, his troubles had been accumulating for years.

As a matter of fact, the man to whose house the Kaiser often walked unattended, whom he took with him on many a canter in and about the city, who was one of the few men in the whole German empire with whom the Kaiser would engage in conversation in public as well as in private without regard for strict court etiquette, was long ago in bad odor with his fellow Americans in Berlin, so much so that he was shut out from American circles in spite of his court connections. This was because of his manner of life, which was objectionable to the Americans, although it did not seem to offend the Germans. Anyone familiar with the different views of the two nations as to home and family will understand this.

For more than twenty years Dr. Sylvester was a well-known figure in clubs and on the boulevards of Berlin. An American born and of a long line of American ancestry, he was nevertheless, a typical German in appearance, big blond and bluff.

The Kaiser did not veil his fondness for his American dentist. Dr. Sylvester was an American, first, last and all the time, and he always met the Kaiser as one American would meet another.

Much as he delights in show, Emperor William went to his dentist's house in the most unostentatious way, and his visits were often prolonged by chats after the actual dental work had been done. Until 1902 Dr. Sylvester lived just outside the Brandenburg Gate, and the Kaiser would walk the mile of Unter den Linden early in the morning and enter the house of the American with no more flourish or attendance than if he were an ordinary untitled Berliner. Dr. Sylvester's house was a museum of works of art, chief among which were many presents given to him by the Kaiser, the latest being a life-sized bust of himself, which occupied the place of honor in the private drawing room.

One recent incident illustrates Emperor William's interest in his American friend. The Kaiser's favorite drive is in the Thiergarten, the imperial deer park created years ago and now in the very heart of the modern city.

As his carriage rolled out through the Brandenburg Gate he always looked for the American flag which hung over the American's house, and never failed to salute it. One day, when flags could be legally flown, the Kaiser looked for the Star Spangled Banner and found it not.

Fifteen minutes later an aid-de-camp appeared at the door of Dr. Sylvester's home and presented the Emperor's inquiries as to why the American flag was not in evidence. He was informed that one of the doctor's new servants had forgotten to raise the flag. The omission was corrected at once.

In 1902 Dr. Sylvester removed from the house at Brandenburg Gate and took the first floor of the hotel at the junction of Koniggratzerstrasse and Thiergartenstrasse. On the Thiergarten side is a roomy, circular piazza and there, at 4 o'clock on all but the stormiest days, all through summer, the big, blond, handsome American dentist might be seen dining with his daughter.

and such guests as happened to be at the house. Frequently these guests included German officials and professional men and sometimes members of the royal family.

Thirty-five years ago, while making a tour of Europe previous to settling down to the practice of dentistry in his native country, Dr. Sylvester was struck with the crude methods of continental dentists and saw the opportunities open to a graduate of a thoroughly up-to-date American school of dentistry. Paris had its Dr. Evans. Dr. Sylvester chose Berlin.

The fame of the American dentist who could remove teeth without pain and patch up old teeth to look as good as new, and, upon occasion, even create an entire new set that looked as natural as life, grew apace, and in time reached the ears of royalty itself. When the Kaiser came to the throne he rewarded the dentist friend of his youthful days with a formal appointment as court dentist, and Dr. Sylvester's practice trebled in consequence.

While he himself had never taken any post-graduate course in dentistry, Dr. Sylvester made it a point to associate with him from time to time promising young men who brought with them the latest improvements known to the American colleges of dentistry—the best in the world. In the belief of some people it was the last of these partnerships which was indirectly responsible for the violent death of Dr. Sylvester.

Fifteen years ago Dr. Sylvester took Dr. Thomas Watson into partnership with him. A form of partnership was drawn up, but Dr. Sylvester, notoriously a bad business man, overlooked one phrase which gave Dr. Watson a loophole to leave before the term of what might be called his apprenticeship ended. When Dr. Sylvester's attention was drawn in later years to this clause, he made light of the possibility, trusting implicitly to the honor of his young associate.

Early in the summer of 1903 Dr. Watson saw fit to terminate his association with Dr. Sylvester, three years before the date set in the articles of partnership. He left the house of the well known American dentist, opposite the Thiergarten, and set up for himself in another quarter, taking with him practically all of Dr. Sylvester's practice, outside of the imperial family.

For 25 years Dr. Sylvester had made large sums of money annually out of his practice, but he had lived extravagantly and played for high stakes at home and at the clubs, and the sudden move of Dr. Watson actually left him in desperate financial straits. He was broken in health, having never recovered from a paralytic stroke two years before; his skill as a workman had departed, and he was dependent upon his young assistants for the keeping up of his practice. It is well known in certain circles of Berlin that Dr. Sylvester was in serious financial difficulties for the last two years of his life, and most despondent.

Dr. Sylvester divorced his wife about 20 years ago, the daughter being left in his custody. Born in Germany, living all her life in Germany, German is the daughter's native tongue, although she speaks English, French, Italian and Spanish perfectly. Even in appearance she is more German than American.

Dr. Sylvester believed the American woman to be the finest type of woman-

hood in the world, and in 1898 he sent his daughter to America for four years of typical college life in order to "Americanize" her. She entered one of the Western colleges and finished in three years, being graduated with high honors.

Dr. Sylvester was often heard to say that his last instructions to her before she left Berlin were that she was to acquire a thoroughly up-to-date American wardrobe, for he considered the American woman the best dresser in the world. Now Miss Sylvester is studying medicine in a college in San Francisco, having decided to fit herself for self-support when her father met with reverses.

The story of Dr. Sylvester's loss of his practice is a story of a man who lets his profession slip owing to high, riotous living. Despite his fine native qualities, qualities which were distinctively American, which appealed to the Kaiser, his royal good fellowship, his brilliant conversation on every subject, his perfect horsemanship, his excellent judgment of books, art, curios and linens, he was a high roller of the most pronounced type, fond of wine and cards, and of—his Hausfreund.

The Hausfreund is an institution better tolerated in Germany than in America. In Berlin it is not always considered out of the way for the right hand of the family to receive the left hand Hausfreund with courtesy, and the left hand friend does not lose caste. In the case of Dr. Sylvester the Hausfreund was a popular actress. In these circumstances, it was not surprising that Dr. Sylvester's practice should fall off.

Dr. Sylvester was a collector of pictures and all kinds of bric-a-brac. His house was full of valuable paintings, frescoes, hand-carved furniture and rich rugs and draperies. He had no office, as the term is understood in America. That is not the custom on the Continent with professional men.

From 10 to 2 three rooms in the apartment showed that they were the offices of a dentist. Mallets, forceps and bottles lay with fine objects of art on the tables, and wailing victims could feast their eyes on many curios spread out to view.

Promptly at 2 o'clock the butler removed the evidences of the dentist's office, set handsome screens about the chairs, and, presto! the house was that of a man of wealth.

At 4 o'clock the doctor dined. His dinners were famous for their exquisite appointments, and his sideboard was laden with solid silver service of all kinds. There was probably not a woman in Berlin who could boast of a collection of table linen equal to that of Dr. Sylvester as to quality and quantity.

Dr. Sylvester was an enthusiastic yachtsman and a leading member of the Royal Yacht Club. His sailing yacht had cabin accommodation for twelve, and during the summer there were many cruises on the Baltic, where he made his headquarters at Herringsdorf, as the guest of his daughter at Villa Florence, his gift to her.

Dr. Sylvester always paraded his American birth. In order to accept the official appointment as court dentist he was obliged to renounce his

American citizenship and become a German, but, nevertheless, it was always the American flag that flew in front of his house, the biggest and brightest American flag he could find. About his rooms everywhere visitors could see suggestions of America. Even American shields were embroidered in the bibs of the aprons of his maids, who were all Germans.—**Baltimore Herald.**

### REMOVALS

A. Hanson, Broadlands, Ill., to Bloomington; F. M. Swain, from Los Angeles, Cal., to Kewanee, Ill.; J. L. Pennington, Rome, Ga., to Birmingham, Ala.; Charles Geary, Scranton, Pa., to New York; Dr. Britzins, Minneapolis, Minn., to Rockford, Ill.; T. F. Huff, Monmouth, Ill., to Kankakee; G. H. Framm, Mt. Vernon, Ill., to Wilton, Iowa; J. W. Inglis, Columbia, Wis., to Redwood Falls, Minn.; Robert F. Lucas, Chicago College of Dental Surgery, to South Bend, Ind.; C. H. Thompson, Brooklyn, N. Y., to Goshen, N. Y.; C. J. Lackey to Gladwin, Mich.; W. S. Bagley, formerly West Chicago, later of California, to Rock Island, Ill.; J. W. Lawrence, De Soto, Wis., to La-Crosse; J. D. Jewett, Duluth, Minn., to Spokane, Wash.; Dr. Thompson, Minneapolis, Minn., to Duluth; F. G. Williams, from Wilmington, O., to Jamestown, O.; E. Defoe, Lowell, O., to New Lexington; W. T. Knapp, Charles City, Iowa, to Belle Plain; Charles Callaghan, Erie, Pa., to Binghanton, N. Y.

### FOR SALE

• Good practice in live Michigan town of 1,200 population. No opposition. Would retain instruments. Reason, other business requires my whole attention.

Address "Mich.," American Dental Journal.





